

RAILWAY AGE

THE STANDARD RAILROAD WEEKLY FOR ALMOST A CENTURY

JANUARY 1933

MORE THAN
913,527
CARS EQUIPPED

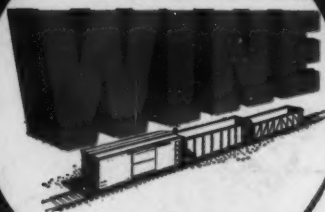
WABASH

WABASH
37133

CAPY 10000
LDLAT 15000
WT 38700

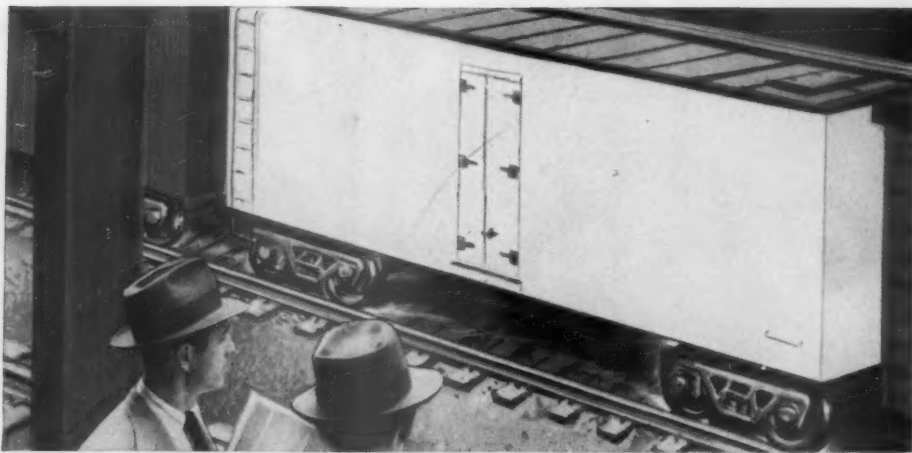
2-7-31

with



Cast Steel
**HOPPER
FRAMES**

...ANY ONE OF WHICH WILL CARRY
GRAIN WITHOUT LOSS OF LADING!



Do your freight cars draw a blank?



Business GROWS where DULUX® goes

People often judge a railroad by the appearance of its rolling stock. In many parts of the country, freight cars are the chief means of keeping the company name before the American public. You can't afford to gamble on the impression you make.

To make a favorable and lasting impression, many experienced railroad men are turning today to Du Pont DULUX Railroad Finishes. They know that rugged DULUX *protects* best against rough weather, corrosive smoke and cinder blast . . . stands scrubbing and hard knocks. Many roads use distinctive DULUX colors—which hold their original sparkle

longer than ordinary railway paints—to identify their equipment everywhere. Because these DULUX qualities cut maintenance costs, the use of DULUX reflects the best in management practice.

So don't let your freight cars draw a blank. Be sure of making a *good* impression by using DULUX Railroad Finishes. Remember, *business grows where DULUX goes*. E. I. du Pont de Nemours & Co. (Inc.), Finishes Div., Wilmington 98, Del.

85% of America's leading railways use DUCO lacquer or DULUX enamel on passenger-train equipment.



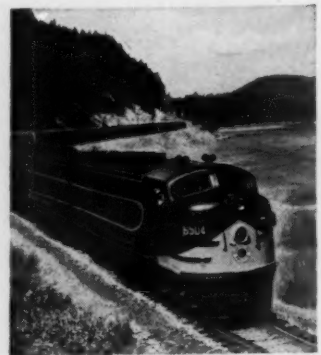
Better Things for Better Living
...through Chemistry

DU CO - DULUX
Railroad Finishes

CHEMICALLY ENGINEERED TO DO THE JOB BETTER

Finish Facts
from
DUPONT

**Northern Pacific's
North Coast Limited
stays de luxe with
DULUX**



Northern Pacific's crack North Coast Limited barrels along the "Main Street of the Northwest" over 1,408 miles of track between Chicago and the North Pacific Coast. Attracting pleasure travel, the route runs by scenic rivers and crosses the Continental Divide in the Montana Rockies. To keep a luxury look, Northern Pacific depends on DULUX Railroad Finishes for lasting beauty and the rugged protection needed to scientifically combat variable Northwest weather.



Standing on the right beside the North Coast Limited is one of the 5400 h.p. diesels used in main-line heavy freight service. These giant diesels take repeated scrubbing, but their Du Pont colors resist fading month after month . . . snap back and sparkle the moment track grime and dirt are sprayed off.

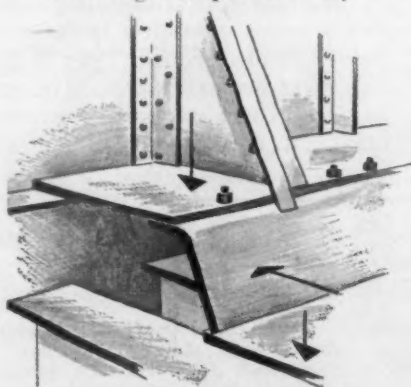
Northern Pacific is another of the many leading railroads that demand finishes of known quality. From experience they know they can depend on Du Pont for better railroad finishes.



Bridge Deck and Curb Plates of Corrosion-Resisting Mayari R

This is one of the two railroad bridges used by the Chicago South Shore and South Bend Railroad over the Calumet Expressway at 130th Street in Chicago. They are parallel, through-plate-girder structures, each carrying a single, main-line track.

The designers specified Mayari R



low-alloy, high-strength steel for sections of these bridges that would ordinarily be subjected to severe corrosion. Deck plates and curb plates, for example, are made of this steel because they collect or hold moisture for longer periods than the vertical members.

The deck plates, 7/16 in. thick, are butt-welded together and secured to the carbon-steel floor beams by large plug welds. Each curb consists of a sloping side plate, butt-welded to the floor on one edge and bolted to a narrow top plate along the other edge.

Mayari R was used here, not alone for its excellent corrosion-resistance, but also for its superior strength. Tests conducted under a variety of atmospheric conditions have demonstrated that Mayari R will last five to six times as long as plain carbon steel.

And as for strength, it has almost twice the yield point of structural-grade carbon steel.

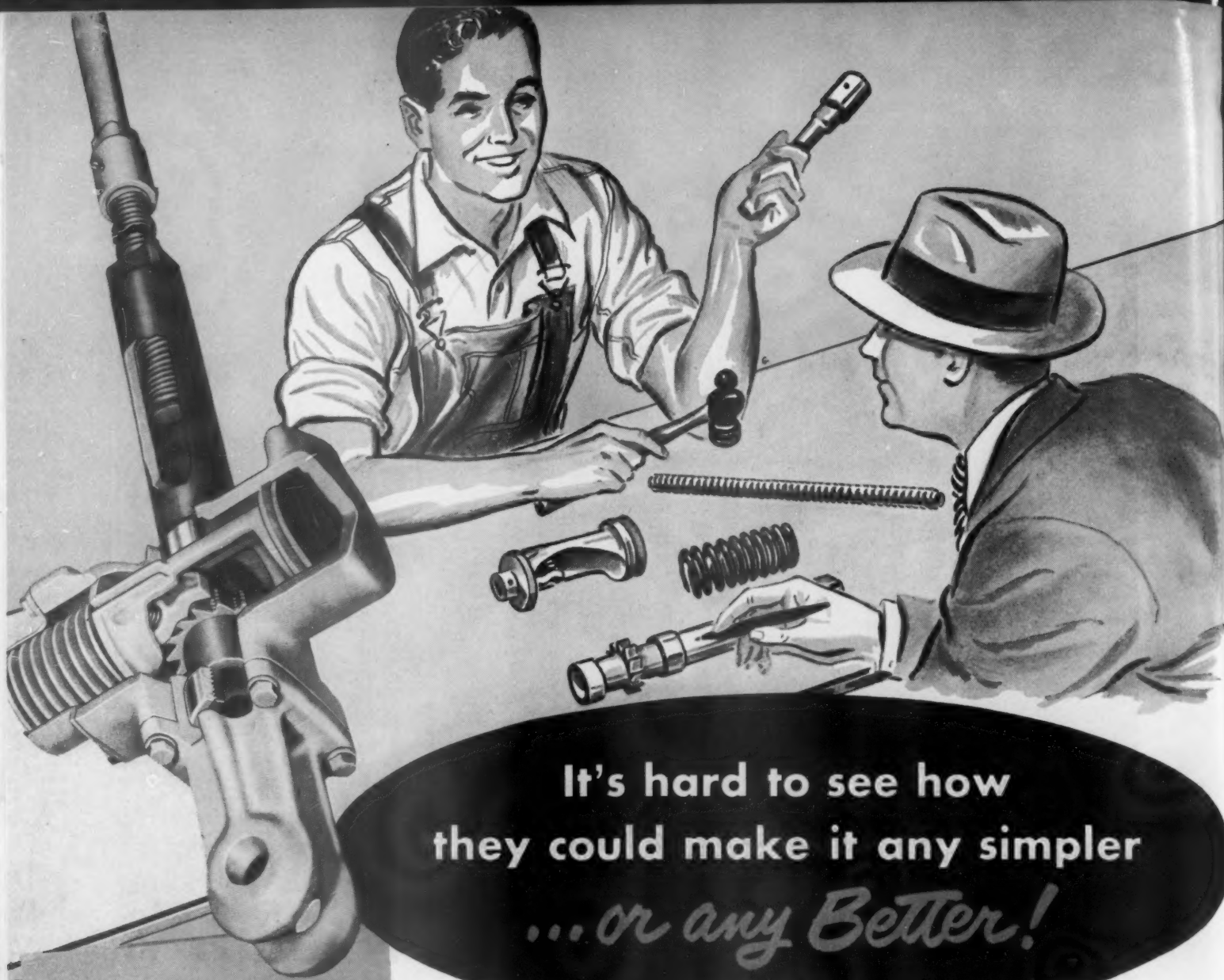
Besides its use in bridges, towers and other railway structures, Mayari R is used in hopper cars, gondola cars, box cars and locomotives. Our Booklet 259 shows many Mayari R railway applications, and explains in detail the properties of this superior grade of steel. Write or phone for a copy.

BETHLEHEM STEEL COMPANY
BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by
Bethlehem Pacific Coast Steel Corporation. Export
Distributor: Bethlehem Steel Export Corporation



Mayari R *makes it lighter...stronger...longer lasting*



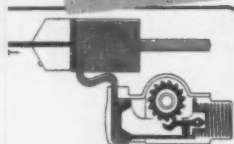
**Westinghouse Type D
Pneumatic-Automatic
Slack Adjuster
for Freight Cars**

Once you see a Westinghouse Type D Slack Adjuster torn down—you'll see why it stays on the job so long, without demanding attention from busy maintenance departments.

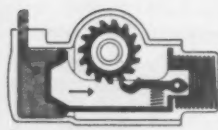
There are only 5 operating parts. Each one is engineered by air brake men who know the importance of complete dependability and long, trouble-free service. There are no complicated mechanisms, no delicate parts. *You don't just trade one main-*

tenance job for another when you install this equipment.

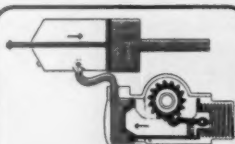
Westinghouse Type D Slack Adjusters are pneumatically powered, fully automatic in operation, and maintain uniform piston travel for the life of the brake shoes. The simple, positive cycle of operation is diagrammed below. Westinghouse Type D Slack Adjusters are easily applied to existing freight cars. Basic design proved in many years of passenger car application.



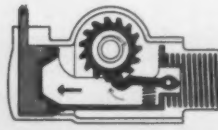
Excessive piston travel in air brake cylinder uncovers port, admits air to slack adjuster cylinder.



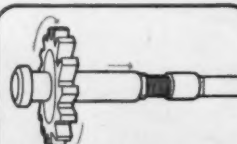
Air pressure moves slack adjuster piston back, compressing piston spring.



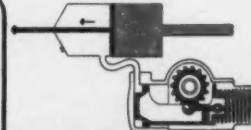
When brake is released, air in slack adjuster piston is vented. Piston spring returns slack adjuster piston.



Pawl on slack adjuster piston engages ratchet nut ... advances it one notch.



Rotation of ratchet nut turns nut on tie rod, shortening the connection.



Process is repeated with each brake application until proper brake piston travel is established.

XX Westinghouse Air Brake Co.
AIR BRAKE DIVISION
WILMERDING, PA.



RAILWAY AGE

With which are incorporated the Railway Review, the Railroad Gazette, and the Railway-Age Gazette. Name Registered in U. S. Patent Office and Trade Mark Office in Canada.



Simmons-Boardman Publishing Corporation:
James G. Lyne, President. Samuel O. Dunn,
Chairman Emeritus. J. S. Crane, Vice-President
and Secretary. C. Miles Burpee, Harry H. Mel-
ville, C. W. Merriken, John R. Thompson, William
H. Schmidt, Jr., J. S. Vreeland, Fred W. Smith,
Vice-Presidents. Robert G. Lewis, Assistant to
President. Arthur J. McGinnis, Treasurer. Ralph
E. Westerman, Assistant Treasurer.

EDITOR James G. Lyne
EDITORIAL CONSULTANT Samuel O. Dunn
EXECUTIVE EDITOR William H. Schmidt, Jr.
MANAGING EDITOR C. B. Tavenner
NEWS & FINANCIAL EDITOR Gardner C. Hudson
WASHINGTON OFFICE
Walter J. Taft Joe W. Kizzia
TRAFFIC & TRANSPORTATION DEPARTMENT
Robert G. Lewis John W. Milliken
John S. Gallagher, Jr.
MECHANICAL DEPARTMENT
C. B. Peck E. L. Woodward
H. C. Wilcox C. L. Combes G. J. Weihofen
ELECTRICAL DEPARTMENT Alfred G. Oehler
ENGINEERING DEPARTMENT
M. H. Dick Henry E. Michael
Radford E. Dove Ralph M. Schmidl
PURCHASES & EQUIPMENT Fred C. Miles
SIGNALLING & COMMUNICATIONS DEPARTMENT
John H. Dunn Robert W. McKnight
WESTERN NEWS DEPARTMENT Arthur M. Cox, Jr.
ASSOCIATE EDITOR Charles Layng
LIBRARIAN Edith C. Stone
EDITORIAL ASSISTANT Frederick E. Colwill

Published weekly by the Simmons-Boardman
Publishing Corporation at Orange, Conn., and
entered as second class matter at Orange, Conn.,
under the act of March 3, 1879. Subscription
price to railroad employees only in U. S., U. S.
possessions, Canada and Mexico, \$4 one year,
\$6 two years, payable in advance and postage
free. Subscription price to railroad employees
elsewhere in the Western Hemisphere, \$10 a
year; in other countries, \$15 a year—two-year
subscriptions double the one-year rate. Single
copies 50¢, except special issues \$1. Address
Robert G. Lewis, Assistant to President, 30
Church Street, New York 7.

Editorial and Executive Offices at 30 Church
Street, New York 7, N. Y., and 79 West Monroe
Street, Chicago 3, Ill. Branch Offices: 1081
National Press Building, Washington 4, D. C.—
Terminal Tower, Cleveland 13, Ohio.—Terminal
Sales Building, Portland 5, Ore.—1127 Wilshire
Boulevard, Los Angeles 17, Cal.—244 California
Street, San Francisco 11, Cal.—2909 Maple
Avenue, Dallas 4, Tex.

IN THIS ISSUE

EDITORIAL COMMENT:

What's the Greatest Need for Railroad Prosperity?	29
Absurdity in Labor Relations	30
Probable Railroad Attendance at Atlantic City Conventions	30

FEATURE ARTICLES:

How the Santa Fe Los Angeles-San Diego Service Makes Money	31
Movable Car Washer Does Good Job	34
How the IC Uses "Long-Stick" Crawler Shovels in Widening Cuts	36
Erie First Railroad to Install Train Identification System	38
DSS&A Adds Diesel Shop to Enginehouse	40
Will Railroad Securities Go Up Faster Than Industrial Stocks?	43

NEWS FEATURES:

Wage Demands Would Add Half-Billion Dollars to Railroad Operating Costs, Says Loomis	11
"Self-Interest" of American Business Requires "Fight" for Private Transportation, White Tells T.A.A.	14
Why Fewer Flat Cars When Demand Is Constantly Rising?, Harvester President Asks	14
Eleven Months Net Income Was \$678 Million	15

DEPARTMENTS:

News of the Railroad World	11	Supply Trade	48
New and Improved Products	25	Financial	50
Benchmarks & Yardsticks	27	Railway Officers	51
Equipment & Supplies	47	Current Publications	59
Organizations	47		

Published by SIMMONS-BOARDMAN PUBLISHING CORPORATION, New York 7

Railway Age Railway Locomotives and Cars Railway Track and Structures
Railway Signalling & Communications Railway Freight Traffic Car Builders' Cyclopedias
Railway Engineering & Maintenance Cyclopedias Locomotive Cyclopedias American Builder
Marine Engineering & Shipping Review Marine Catalog & Directory
Books covering transportation and building

Railway Age is a member of Associated Business Publications (A. B. P.) and Audit Bureau of Circulation (A. B. C.) and is indexed by the Industrial Arts Index and by the Engineering Index Service. Printed in U. S. A.



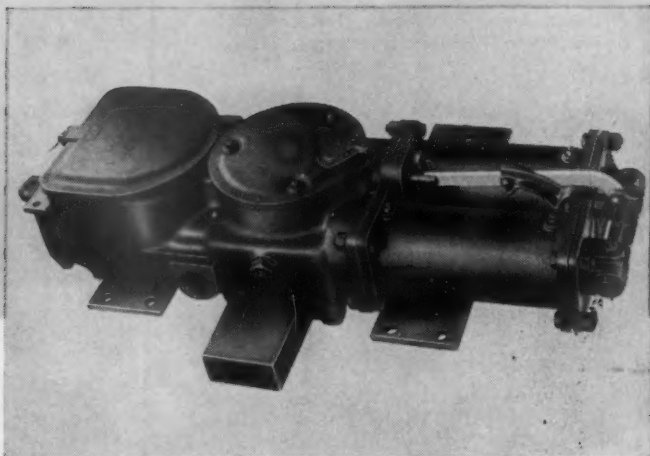
A-5 ELECTRO-PNEUMATIC. For installations where speed of operation and flexibility of application are major requirements, but the dual control-feature is not required.



A-21 DUAL-CONTROL ELECTRO-PNEUMATIC. Designed especially for installations where dual control is desired. A high-speed movement.



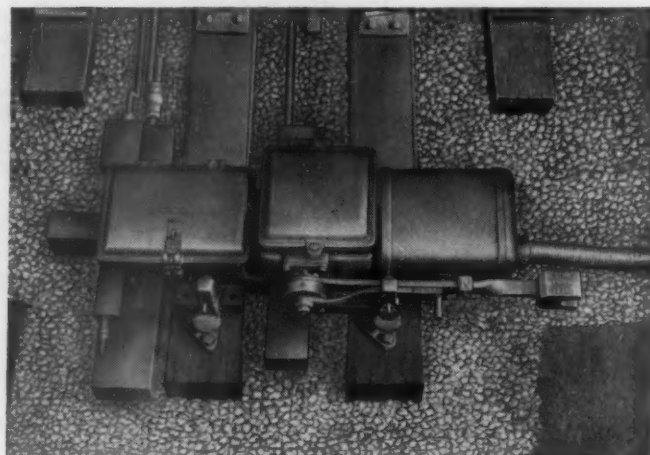
M-3 ELECTRIC. For electric operation where dual control is not required.



A-10 ELECTRO-PNEUMATIC. For confined areas such as subway and elevated railways. Another high-speed movement.

The *Right* SWITCH MACHINE *for Your Job*


Whatever your requirements may be . . . you can select a rugged, powerful "Union" Switch Machine which is best suited to your specific needs . . . and will assure long, dependable operation with minimum maintenance and low long range costs.



M-23A AND M-23B DUAL CONTROL ELECTRIC. Designed especially for installations where dual control with electric operation is desired.

UNION SWITCH & SIGNAL

DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY

SWISSVALE  PENNSYLVANIA

NEW YORK CHICAGO ST. LOUIS SAN FRANCISCO

WEEK AT A GLANCE

CURRENT RAILWAY STATISTICS

Operating revenues, eleven months	
1952	\$9,646,357,451
1951	9,489,714,254
Operating expenses, eleven months	
1952	\$7,341,636,162
1951	7,369,948,055
Taxes, eleven months	
1952	\$1,169,580,294
1951	1,100,804,634
Net railway operating income, eleven months	
1952	\$ 964,041,996
1951	832,132,965
Net income, estimated, eleven months	
1952	\$ 678,000,000
1951	567,000,000
Average price railroad stocks	
January 13, 1953	68.68
January 15, 1952	55.11
Car loadings, revenue freight	
1 week, 1953	563,085
1 week, 1952	610,116
Average daily freight car surplus	
January 10, 1953	88,280
January 12, 1952	12,617
Average daily freight car shortage	
January 10, 1953	322
January 12, 1952	4,264
Freight cars delivered	
December 1952	7,845
December 1951	8,458
Freight cars on order	
January 1, 1953	80,296
January 1, 1952	123,947
Freight cars held for repairs	
December 1, 1952	96,085
December 1, 1951	88,911
Average number of railroad employees	
Mid-November 1952	1,238,688
Mid-November 1951	1,258,232



In This Issue . . .

"THE PRESENT CONGRESS will probably determine the future of transportation in this country. . . It remains for American businessmen, in their own interest, to . . . lend their efforts . . . to the crying need for revising an outmoded transportation policy that has no place in a modern competitive system of free enterprise."—From an address, more fully reported on page 14, by William White, president of the New York Central, to the annual meeting of the Transportation Association of America.

WE DO TOO KNOW THE DIFFERENCE between millions and billions! (Billions is what highway planners and other spenders of public money think in terms of nothing less than!) Unfortunately, however, both editor and draftsman slipped up in using "millions" where "billions" was intended, under Chart No. 1 on this page, in last week's Review and Outlook Issue. Of course our readers are well enough informed to realize that the railroads last year handled 612,000,000,000 revenue ton-miles—not a mere 612,000,000—but we mention it anyway, just to set the record straight.

WITH "PRODUCTIVITY" WAGE INCREASES for railroad employees currently under consideration (as reported on page 11), it is especially pertinent to quote the following figures from the Rutland Railway's "Newsliner," which show that railroads already top a long list of other industries in ratio of wages and salaries to sales, on the basis of 1951 figures:

Railroads	50.8	Textile mill products	24.6
Transportation equipment (excl. auto)	49.3	Paper and allied products	22.8
Printing and publishing	35.2	All manufacturing	21.7
Machinery (except electrical)	32.8	Rubber products	19.5
Stone, clay and glass products	31.9	Automobiles and auto equipment	17.7
Electrical machinery	31.1	Chemicals and allied products	17.0
Leather and leather products	29.9	Food and kindred products	13.4
Iron and steel and their products	29.2	Tobacco manufacturing	7.3
		Products of petroleum and coal	4.9

The Rutland's own 1951 wage-revenue ratio, incidentally, was over 70 per cent.

POSITIVE IDENTIFICATION of trains passing an unattended junction is afforded by a new electronic system just installed on the Erie at Waterboro, N. Y. This latest Erie "first," developed by railroad engineers in cooperation with the General Railway Signal Company, is described and illustrated in the article which starts on page 38.

WEEK AT A GLANCE

FURTHER PROOF that passenger service can be made to pay—where traffic potential exists and service is made sufficiently attractive—has come from the Santa Fe's Los Angeles-San Diego line (page 31). More, rather than less, service, and good equipment—streamliners and Budd RDC's—plus low fares have been the answer in that case—an answer which is particularly striking in view of the heavy air and highway competition to which the line is subject.

In Washington . . .

IF WE INSIST on sinking a lot of our perfectly good money under St. Lawrence river ice, Canada, thinks President Truman, will still "allow" us to do so. Hardly, we would suggest, a new record in international generosity on the Dominion's part!

SUBSTANTIALLY MORE MONEY would be appropriated for promotion of air, water and highway transportation during the government's 1954 fiscal year—by comparison with fiscal '53—under the budget presented to the new Congress as one of President Truman's last official acts. Details of the proposed expenditures, as well as of recommended appropriations for the I.C.C. and other government agencies dealing directly with railroads, are summarized in the news pages. If the incoming administration *really* wants to economize, this new budget suggests at least three good starting points—and we *don't* mean the extra pittance proposed for the understaffed I.C.C.



A RAILROAD CAREER of 62 years' duration—spanning half the industry's history, and as outstanding in achievement as in length—came apparently to its active conclusion last week, with the announced retirement of John M. Fitzgerald as chairman of the Eastern Railroad Presidents Conference Committee on Public Relations. Mr. Fitzgerald's railroad service, which included a term as president of the Western Maryland, is summarized in the news columns, under "Railway Officers—Executive."

. . . And Elsewhere

THE IDEA OF INTERSTATE COOPERATION in collection of truck taxes appears to be gaining ground. We have, at any rate, seen a report of a nine-state conference recently held at Salt Lake City, at which California representatives explained application of such a plan to interstate trucks. As we understand it, interstate carriers would obtain, for a nominal fee, an interstate highway use tax permit in each state through which a given truck operates. The carrier would then file in its home state each month a highway use tax return and pay the tax due, which would presumably be prorated among participating states on the basis of mileage traveled in each. Credit for fuel actually purchased in each state would be offset against the tax due that state. Tentative rates are said to run from 9 mills per mile to a maximum of 31 mills per mile.

THE FIRST FEW MONTHS OF THIS YEAR are likely to be active ones in the railroad financial field, if plans now under consideration are carried out. The Nickel Plate is planning to sell \$10 million of refunding mortgage bonds to pay off a collaterally secured note and replenish working capital; while the Chicago Great Western is contemplating a \$6-million collateral trust bond issue, for similar purposes. Railroad financial analysts in New York are discussing reported details of a Western Maryland recapitalization plan designed to eliminate back dividends on preferred stock, while there are indications that the Maine Central may also propose a plan having the same general objectives, when its contemplated bond refunding operations are successfully completed.

The HERTZ Rail-Auto Plan

is taking millions of travelers off the highways...and putting them back on the railroads!



Yet the fight has just begun... and it's the railroad's fight too!

With the splendid, ever-growing cooperation of most railroads... with the eager personal efforts of thousands of railway ticket agents to whom Hertz pays 10% commission... the Hertz-originated Rail-Auto Plan has become a powerful force that's diverting city to city private-auto travel back onto the trains!

It's really rolling now... this great plan that strikes straight to the heart of the biggest and most persistent competition every railroad is facing... city to city auto travel totaling approximately 500 billion passenger car miles a year!

Hertz, world's largest car rental organization, was first to recognize that much of the long, tiring, hazardous auto driving is caused by travelers' need or desire for a car at destination... not for economy... as is sometimes believed. Cars are needed at destination for vacations and business, surveys disclosed. In 1947 Hertz launched a strong national advertising and promotion program which has never since been halted, but instead has steadily increased.

Alert Railroad Management Joins In! Many railroads joined in the fight for this huge business. And look what many railroads are doing now... advertising... promoting... selling the Rail-Auto Plan! They are using displays in their ticket offices... advertising in their timetables... running separate rent-a-car ads and devoting



space in their own general ads. Their ticket sellers realize the 10% commissions Hertz stations pay and many roads urge ticket agents to ask every ticket buyer... "Shall we reserve a car for you at your destination?"

Significantly, not a single railroad, once having started to promote the rail-auto plan, has abandoned such promotion. Instead they have steadily increased their participation. Last year it was estimated that approximately 500 million miles were traveled on public carriers by travelers who rented cars at their destinations. Next year it will be more... far more. Are you doing your part to divert this business?

Today, Hertz rent-a-car service is available at more than 700 stations in more than 500 cities! Consider these facts!—Hertz honors Rail Credit Cards... more than a million and a half Hertz Charge Cards and Courtesy Cards are in the hands of travelers... Hertz is spending more than \$2,000,000 yearly in advertising... and providing rail travelers with new cars... with gasoline, oil, Public Liability, Fire and Theft Insurance and \$100.00 deductible collision protection provided at no extra cost... yes, today the Hertz-originated Rail-Auto Plan offers every railroad something worthwhile to sell, and to profit by! Why not, today, send for complete information for car reservation forms for everything your reservation departments need to actively, continuously, profitably promote rail-auto service. *It's your fight too!*

Dept. D13, 218 S. Wabash Avenue, Chicago 4, Illinois; phone: WEBster 9-5165

HERTZ Drive-Your-Self SYSTEM

In a hurry for smooth-riding freight cars?

Get them now!

INSTALL

A S F

You can enjoy the advantages and savings of longer spring travel *now*, by installing the A.S.F. Ride-Control Package in your present rolling stock.

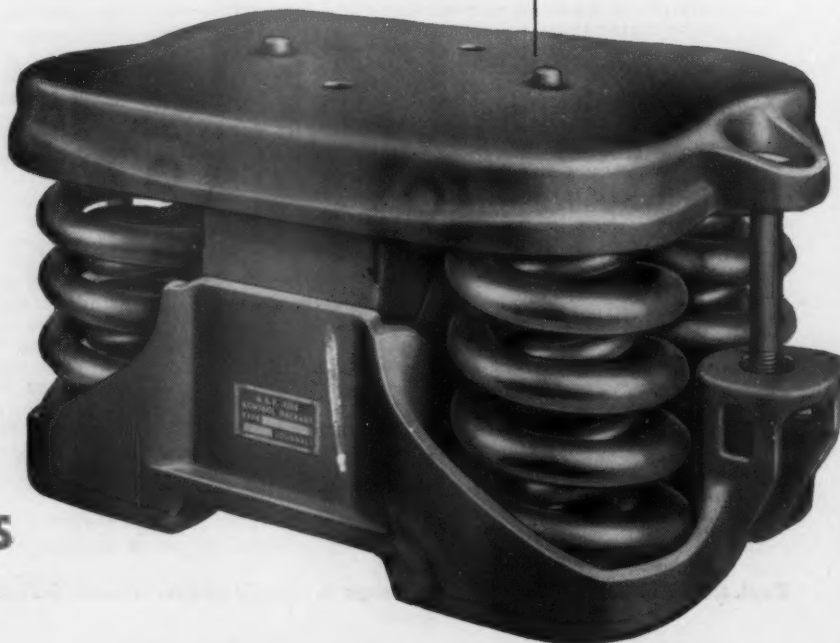
The Ride-Control Package is a complete spring group with built-in 3-way friction control (the famous A.S.F. Ride-Control principle). The unit comes completely assembled, is installed as a unit in place of the present spring group.

This Package gives $2\frac{1}{2}$ to 3 inches of controlled spring travel, in place of the AAR-standard $1\frac{9}{16}$ to $1\frac{1}{8}$ inches. Separate Ride-Control springs provide constant pressure on hardened friction surfaces to control movement in all three directions.

Cost is low—about \$160 per car set—but it means big savings. Ride-Control helps protect lading and cut claims. It helps protect rolling stock and cut repair costs. It helps protect roadbed and cut track maintenance. You can't lose! And you can have it now!

Talk it over with your A.S.F. representative and ask him for all the details; or write American Steel Foundries, 400 North Michigan Ave., Chicago 11, Illinois.

RIDE-CONTROL® PACKAGES

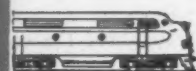


AMERICAN STEEL FOUNDRIES

mint mark of  *fine products*



NEWS



OF THE RAILROAD WORLD



Wage Demands Would Add Half-Billion Dollars To Railroad Operating Costs, Says Loomis

Further wage increases for railroad employees would "fan the fires of inflation throughout the national economy," Daniel P. Loomis, chairman of the Association of Western Railways, testified on January 12 before a government referee. The referee, Paul N. Guthrie, professor of economics at the University of North Carolina, was named by President Truman to pass on claims of 19 unions, representing 1,158,000 railroad workers, which seek "improvement" factor wage hikes aggregating 18 cents an hour, retroactive for three years at a rate of six cents a year. The demands would add more than a half-billion dollars a year to railroad operating costs, according to carrier estimates.

Railroad workers, Mr. Loomis said, have received "very favorable increases as compared with other industries. They already have had increases in excess of those allowable under wage stabilization regulations. To grant any further increase at this time, merely because a few companies such as General Motors have granted increases under the name of annual improvement wage increases, would be wholly inconsistent with the entire stabilization program—and cannot be justified on any other basis."

The carriers' witness said General Motors' employees have received increases during the postwar period totalling 76 cents an hour—51 cents in basic rates and 25 cents in cost-of-living adjustments. Non-operating rail-

road employees, he added, had had an increase of 90 cents an hour during the same period—77 cents in basic rates and 13 cents in cost-of-living increases. He gave the total increase for yard service employees as 87.5 cents or 91.5 cents, depending on whether or not they have gone on the five-day week. Straight time hourly earnings of road operating employees have gone up \$1.037 in the postwar period—84.3 cents from increases in basic rates and 19.4 cents from cost-of-living adjustments.

Mr. Loomis declared that in negotiating the three-year agreements with railroad unions, the General Motors contract had been taken into consideration, and that it was "consistently the carriers' position that they had matched

the amounts in the General Motors agreement. It is clear that the railroad unions can have been under no illusion that the mere approval by the wage stabilization authorities of the General Motors plan or of other similar plans could be used to justify the imposition of further wage increases on the railroad industry or the imposition of further increases in rates on the shipping and traveling public."

Emphasizing the favored position of railroad workers, Mr. Loomis cited U.S. Bureau of Labor Statistics showing total wage increases in various industries during the postwar period. In basic steel these totalled 78½ cents; aluminum, 77½ cents and 78½ cents; automobiles, 76 cents; rubber, 75½ cents; farm implements, 76 cents; aircraft, 63 to 75 cents; electrical equipment, 77 cents; and meat packing, 77 cents.

"During the whole period since V-J Day the great bulk of production workers have been trying to attain the levels

SERVICE BIGGEST FACTOR IN ROUTING L.C.L., SAYS NATION-WIDE POLL OF SHIPPERS

"Service" is the most important thing for railroads to stress in their bid to hold and build less-carload traffic in the future, according to a sampling of the country's top-ranking industrial traffic managers in a poll conducted by *Railway Age's* new affiliated monthly publication, *Railway Freight Traffic*. Results of this poll appear in the first issue of *Railway Freight Traffic*, which is just off the press.

Shippers queried in the poll were asked to name the most important factor in selection of routings for merchandise among: (1) "rates"; (2) "service"; and (3) "safety-in-transit." Seventy-two per cent of the pollsters voted "service" as the biggest consideration. Some 23 per cent believed "rates" are the primary factor, and somewhat under 5 per cent considered "safety-in-transit" as being most important.

achieved in the railroad industry," Mr. Loomis said. He added there "were no special circumstances in the case of the railroad industry which would justify a further wage adjustment," and that to do so "would clearly create an unstabilizing influence, the impact of which would be immediately felt throughout the country."

The present level of wages of railroad workers, Mr. Loomis said, "has reached a much more favorable level over production workers than is actually justified. "One would expect that production workers in outside industry would have greater aggregate increases in hourly earnings than railroad workers because of (1) later unionization of the workers in outside industry; (2) increasing competition suffered by railroads from other forms of transportation; (3) railroads' decreasing share of national income; and (4) greater profits of other industries."

The railroad spokesman said that by 1950 average straight time hourly earnings of railroad workers were 17 cents in excess of all production workers in manufacturing industries. "It is plain, therefore, that railroad employees entered the current stabilization period at a high level in comparison with all production workers in respect of earnings. They have further increased their gains during stabilization. By October 1952, the excess over production workers reached the highest point in history—about 24 cents an hour in excess of

all production workers. This represents a gain of 7 cents an hour over production workers during the current stabilization period."

Mr. Loomis said the Wage Stabilization Board had never adopted a policy permitting automatic annual improvement or productivity increases in industry generally, and that its approval of the General Motors type of pre-freeze agreements was limited to a relatively few industries and conditioned on companies signing warranties that increases would not be used as a basis for price increases.

He said there was no similarity between the railroad industry and those in which improvement factor wage increases had been approved by the Wage Stabilization Board. "Nor can the railroad industry, under present circumstances, warrant that a further adjustment in the wages of its employees will not be used as a basis for requesting rate relief from the Interstate Commerce Commission."

Wages of railroad employees "have more than kept pace with the increased physical productivity of the railroads and should not be further increased," J. Elmer Monroe, an assistant vice-president of the Association of American Railroads, testified on January 14. Mr. Monroe said railroads, being public service industries, "were not free to increase their prices at will to meet increases in costs, nor free to curtail their services in order to cut expenses. Fur-

HOOK APPOINTED DEPUTY POSTMASTER GENERAL

Charles R. Hook, Jr., vice-president (personnel) of the Chesapeake & Ohio, has been appointed Deputy Postmaster General by President-Elect Dwight D. Eisenhower.

thermore, they are experiencing increasingly severe competition from other forms of transportation."

The carrier witness declared that railroads, in contrast to so-called growth industries, were "not an expanding industry." He said they have "not participated in postwar prosperity from an earnings standpoint as have other industries; that they are operating on a small margin of profit and are extremely vulnerable to any falling off in volume of business."

Wage-Payroll Taxes

Pointing out that wages and payroll taxes represent a larger proportion of operating expenses in the railroad industry than in manufacturing industries, the witness said the average hourly wage rate of all railroad employees had increased about 2½ times since 1939—from 74 cents an hour in 1939 to \$1.84 an hour in October 1952. Total labor costs—wages and payroll taxes—in the railroad industry consumed about 50½ cents of each dollar of gross revenue in 1952, compared with only 17.7 per cent in the automobile manufacturing industry in 1951 and an average of 21.7 per cent for all manufacturing industries.

"Annual improvement wage increases," Mr. Monroe said, "have a much lighter impact on these industries than they would have on the railroad industry, where wages and payroll taxes take a much greater portion of the revenue dollar." Mr. Monroe added that "one of the principal causes of inadequate earnings of railroads, even during the period of high traffic volume, has been the large wage increases in recent years."

Higher Wages—Higher Rates

Increases in freight rates and passenger fares had been necessitated by increases in railroad payrolls, he said, and this "has rendered the railroad industry more vulnerable to competition from other agencies of transport." He said the impact on the railroad industry has been so serious that it should not be called upon to make additional wage increases.

"In 1952, as a result of high traffic volume and a series of increases in freight rates and other charges, the gross revenues of the railroads reached an all-time high of \$10,600,000,000. This was \$4,572,000,000 higher than the yearly average in the 1926-1930 period. The railroads' rate of return on net investment went down from an average of 4.76 per cent in the 1926-1930



POLAR AND TROPICAL assignments for these standard "F"-type 1,500-hp. freight locomotives, built by the Electro-Motive Division of General Motors, have required some special variations in equipment to cope with extreme conditions of climate. The Alaska Railroad unit on the left—one of six currently being sent to that territory for freight service between Anchorage and Fairbanks and between Anchorage and Seward—is equipped with snow plow pilots and special winterizing equipment in the engine room to prevent freezing and icing of the engine cooling system, fuel and lubricating lines. The Alaska plans to operate the six units as two 3,000-hp. locomotives.

Number 1006, on the right, is one of two units built for the Saudi Arabian Government Railroad for freight and passenger service over the 370-mile line between Bahrein and the capital city of Riyadh. This railroad has been built since the close of World War II by the Arabian American Oil Company, utilizing American equipment and practices. The locomotive's color scheme is bright green and white for high visibility against the interminable sand of the country it will traverse. Special equipment includes "snorkel"-type air filters on the roof to protect engines from dust and sand. The cab has been insulated against heat and furnished with special ventilation.

period to a return of only 4 per cent in 1952."

By comparison, the rate of return for manufacturing industries, he said, averaged about 11 per cent during 1925-1929. This increased to about 15½ per cent during 1946-1951 and was 14.4 per cent in 1951. Railroads' return on net assets in 1951 was 4.8 per cent. The automobile and truck manufacturing industries he continued, earned 17.5 per cent in 1951. This "ranked third from the top of 70 of the principal industries while the railroads' return of 4.8 per cent ranked third from the bottom. The present low level of railroad net earnings—notwithstanding the high level of traffic—is a disturbing element, not only to railroad investors and managements, but also to the general public. It should also be disturbing to railroad workers, whose employment is dependent on the soundness of railroad finances."

Employees Reap Benefits

Mr. Monroe said the contrast between wage increases obtained by railroad workers and the decrease in net earnings in the railroad industry "afford conclusive proof that employees have been reaping most, if not all, the benefits of the increased revenue productivity of railroads."

Cumulative freight rate increases authorized by the Interstate Commerce Commission totalling 78.9 per cent for the country as a whole have been necessitated by increases in railroad labor costs in postwar years, John J. Fitzpatrick, chairman of the Traffic Executive Association—Eastern Railroads, testified on January 14. Despite these rate increases, he added, net earnings of the railroad industry have been critically inadequate.

Railroad rates at the end of the war were virtually at prewar levels with the exception of a 10 per cent increase in passenger fares, he continued. "On the other hand, wage rates in effect in 1945 were very much higher than those prevailing in prewar years as a result of increases made in 1941 and 1943, and the prices of materials and supplies also had gone up. In the latter part of 1945 traffic trends forecast a substantial decline in revenues from the abnormally high levels produced by a global war. Traffic officers generally anticipated that transition from a war to a peacetime economy would create many difficult problems for the railroad industry from the standpoint of adequate earnings."

The witness pointed out that freight traffic handled by the railroads during the war not only "showed an enormous increase in volume but that there was a significant increase in higher-rated traffic, that is, traffic that moves at higher rates and charges. The trend at the close of 1945 was away from this abnormal proportion of higher-rated traffic. Evident, too, were unfavorable reverses in the long-haul characteristic of wartime traffic. A striking example of long-haul traffic reverting to its pre-



MANUFACTURE OF CUSTOM-DESIGNED conveying and processing machinery for scientific, economical handling of materials, has been put on a straight-line production basis in this new 300,000-sq. ft. plant, designed and built for the Link-Belt Company by the Austin Company at Colmar, Pa., 25 miles north of Philadelphia. The plant has an overall length of 880 feet, with overhead bridge cranes in four of five 60-ft.

bays, where 32-ft. clear heights have been provided, as well as in the higher (42-ft. clearance) receiving and shipping bays at either end. Engineering activities occupy the entire second floor of the face brick office building at the front of the plant, which has been designed to permit expansion to double the present size of the manufacturing area. A complete sewage treatment plant has been located at the back of the 43-acre site.

war pattern was the loss to tank steamers of crude petroleum, which had shown an increase of 224.5 per cent in tonnage originated in 1944 over 1940, and an increase of 1,140.3 per cent in freight revenue."

He said it also was apparent that return to peacetime conditions would result in a sharp dropping off in the volume of passenger traffic, and that the effect of this change on net railway operating income would be substantial.

"For these reasons," Mr. Fitzpatrick said, "railroads entered 1946 with an unfavorable earning outlook which was complicated further by pending demands of railroad workers for additional increases in wage rates."

I.C.C. Will Receive Briefs In Seatrain Complaint Case

The Interstate Commerce Commission will receive pro and con briefs on the Seatrain Lines' petition for "declaratory orders" which would remove "uncertainties" arising from an October 24 decision of the federal district court for New Jersey.

Holding that the I.C.C. had jurisdiction in the premises, the court dismissed Seatrain's suit which sought damages from the Association of Ameri-

can Railroads, Pennsylvania, Atlantic Coast Line, Southern, and Louisville & Nashville; and injunctive relief "with respect to the use of cars for movement of freight via Seatrain." (*Railway Age*, December 22, 1952, page 51.)

Seatrain's petition to the I.C.C. asked the commission to answer these questions:

"1. Has the Interstate Commerce Commission the requisite authority . . . to award reparations for damages resulting from the utilization of available administrative and court procedures, in bad faith or without probable cause . . . not for the purpose of obtaining settlement of issues but with the intended effect of continuing and creating doubts and uncertainties, all for the purpose of preventing future diversion of all-rail traffic to Seatrain?"

"2. Has the Interstate Commerce Commission the requisite authority . . . to require the railroads which do not participate in and maintain through routes with Seatrain to permit interchange of their freight cars with Seatrain. . . ?"

The commission docketed the petition as No. 31177. It set January 30 as a deadline for the filing of main briefs in support or opposition. February 20 was set as the deadline for reply briefs.

"Self-Interest" of American Business Requires "Fight" For Private Transportation, White Tells T.A.A.

If transportation, "conducted under private ownership and in the public interest," is worth preserving, "it is worth fighting for, and it deserves and needs the continuing support of American businessmen, if only in their own self-interest," William White, president of the New York Central, said at the annual meeting of the Transportation Association of America at Chicago on January 15.

"The present Congress," Mr. White said, "will probably determine the future of transportation in this country. It will be aided by the Transportation Association of America, by the United States Chamber of Commerce, by the National Industrial Traffic League and many other forward-looking organizations, and by studies of its own committees. It remains for American businessmen, in their own interest, to heed the danger signals and lend their efforts, individually and collectively, to the crying need for revising an outmoded transportation policy that has no place in a modern competitive system of free enterprise."

The NYC executive preceded this challenge to business leadership with a declaration that transportation is "of vital importance," and that "those who espouse Socialism, and those who espouse Communism, seek invariably to control the means of distribution of goods." So, he warned, "let us not be complacent"—whether from the "dread disease of self-satisfaction" or from "unawareness of diseases that gnaw at the vitals of an industry."

"Basically Optimistic"

While declaring himself "basically optimistic" about the railroad industry, Mr. White said he could not let his optimism "persuade" him "that the railroad industry can go on indefinitely, doing a boom-size business with depression-size profits, without succumbing by default to government ownership." He cited as "a fact of present-day business life," which "should be sufficient to dispel" any feeling of self-satisfaction or unawareness, the inability of "the vital railroad industry," even "during a long period of heavy business volume . . . to earn even four per cent on its net investment in transportation property."

Earlier in his address, Mr. White had commented on the work of the T.A.A.'s Cooperative Project on National Transportation Policy (*Railway Age*, June 2, 1952, page 95), in which he had participated as chairman of the Railroad Forum.

"It was inconceivable," he said, "when we started out that we could reach so much area of agreement as we actually have done. . . . The report . . . [could not] be expected to present unanimous agreement. . . . But, looking back on this great cooperative effort,

I have come more and more to realize that to a very large extent the men engaged in it attempted to put aside their selfish interest [because] . . . they see clearly the dangers of 'creeping socialism' . . . they know that we all have a common fight on our hands against the enemies of our capitalistic profit system. Men who agree on such basic principles cannot afford to be fighting each other; rather, they must gird to fight the common enemy."

Mr. White described as "the greatest single achievement" of the Cooperative Project "the statement on public aid to transportation." "If the Congress," he said, "will adopt the philosophy of the public aid statement, and seek by all means to implement it as quickly as possible, we shall have a

more healthy climate in which to compete on equal terms in the transportation markets of the United States, and taxpayers as a whole will benefit substantially."

He also urged that "T.A.A. and other organizations with a public-spirited interest in transportation go to the aid of the Interstate Commerce Commission in seeking from Congress an appropriation that will permit the commission to perform its functions adequately and with dispatch."

Mr. White's speech was delivered at a luncheon held during the T.A.A.'s annual meeting; in it he paid special tribute to work done in connection with the National Cooperative Project by Donald Conn, executive vice-president of the T.A.A., and by George P. Baker, professor of transportation at Harvard Business School, whom Mr. White described as "coordinator, mediator, umpire, referee, and smoother of ruffled feelings."

Why Fewer Flat Cars When Demand Is Constantly Rising?, Harvester President Asks

"I do not wish to join the ranks of the critics, but one thing about the railroad industry puzzles me. The basic demand for flat cars has been on a constant increase—not as a temporary thing, but probably as a permanent fact of life in the transportation business. But during the past 10 years, what has the railroad industry done about meeting this demand of its customers? It has gone backward. On December 1, 1942, there were 58,957 flat cars owned by Class I roads. On December 1, 1952, 10 years later, the number of flat cars had gone down to 47,024, a decrease of approximately 20 per cent."

So said John L. McCaffrey, president of the International Harvester Company, before the Midwest Shippers Advisory Board in Chicago on January 8. He had prefaced these remarks by stating that Harvester historically has shipped many of its products by flat car—"that is the way we prefer to ship them." He also said his own company had greatly expanded production of such products in the past decade; that many competitors had similarly expanded, and that many new competitors had entered the business—all of them need flat cars.

"What has happened as a result? My company—and I am sure the others have done the same—being unable to get flat cars in the number we needed at the times we needed them, has shipped by motor truck. We have shipped by barge, where that is feasible. We have even, on occasion, had to call up our dealers in areas not too far from manufacturing plants and tell them to send their own trucks to the plant to pick up their goods.

"This was tonnage which railroads could have had. You didn't lose it because some competing form of transportation was preferred. You lost it because you were not equipped to handle it. You are still losing it for that same reason."

L.C.L. Men Uninformed

A complaint that railroad traffic representatives who solicit less-carload traffic are often poorly informed on L.C.L. service schedules, and in general show little interest in the business, was voiced by the board's L.C.L. Committee. The committee urged that railroads consider more training for these representatives and that they be given more frequent information. The committee also urged that more effort be devoted to advising shippers of changes in package car schedules by issuing supplements with greater promptness.

Elected to serve the board for the coming year were: General chairman—M. I. Adams, traffic manager, Cutler-Hammer, Inc., Milwaukee; alternate general chairman—C. R. Purcell, manager, transportation department, Quaker Oats Company; and general secretary—P. G. Jefferson, general traffic manager, Fairbanks, Morse & Co.

Canada Will Still Let U. S. Help on Seaway—Truman

President Truman believes there is still opportunity for the United States to join with Canada, "as we should have long ago," in building the proposed St. Lawrence seaway.

The President so advised Congress on January 9 in his fiscal '54 budget

message, which also called for continuing federal aid to air transportation and large expenditures for highways. The President also estimated that the Post Office Department would operate at a deficit of \$669 million in the 1954 fiscal year, about the same as in the current fiscal year.

Mr. Truman's comment on the St. Lawrence project recalled that Canada had recently advised the State Department that it regarded the 1941 agreement for joint construction of the seaway as having been superseded by the International Joint Commission's October 28, 1952, order approving a power project in the International Rapids section of the St. Lawrence (*Railway Age*, November 24, 1952, page 13). Then came the expression of Mr. Truman's belief that there was still time for the U.S. to participate in construction of the seaway, which Canada has said it will build alone.

"If the new administration and the new Congress," he said, "propose practical arrangements for sharing the cost and the construction of the seaway, I believe the Canadians will, even at this late date, admit us to partnership in the seaway. I hope very strongly that this will be done, for it is clearly in the best interests of both countries

that this important waterway along our common boundary should be built and controlled by both countries together."

On the matter of subsidies to air transportation, President Truman said this industry "is still in a developmental stage, and continues to need substantial federal assistance in order to realize its full potential growth." As to air mail subsidies, the president estimated that they would amount to \$71 million in fiscal 1954. This estimate was based on Civil Aeronautics Board studies which put the subsidy at "slightly more than half of the total air mail payments."

As reported elsewhere herein, the budget proposed \$593,962,000 for highways in fiscal 1954. "The level of highway grants in any given year," the President said in his message, "is determined by legislative authorizations previously enacted by the Congress and by the volume of state and local construction activity on federal-aid road systems. Therefore there is little control over the expenditures level of this program through the budget process."

The President also submitted his annual state-of-the-union message to Congress. This contained no legislative recommendations, and dealt largely with the world situation.

suant to the Interstate Commerce Act's section 5a which was added by the Reed-Bulwinkle Act. Division 2 of the commission fixed the effective dates in recent orders which approved the pacts as modified by amendments called for in its reports on them. (*Railway Age*, June 9, 1952, page 18, and October 13, 1952, page 18.)

Freight Car Loadings

Loadings of revenue freight in the week ended January 10 totaled 688,332 cars, the Association of American Railroads announced on January 15. This was an increase of 125,147 cars, or 22.2 per cent, compared with the previous week, which included the New Year holiday; a decrease of 56,478 cars, or 7.6 per cent, compared with the corresponding week last year; and a decrease of 94,783 cars, or 12.1 per cent, compared with the equivalent 1951 week.

Loadings of revenue freight for the weeks ended December 27, 1952, and January 3, 1953, totaled 520,671 cars and 563,085 cars, respectively; summaries for the two weeks, compiled by the Car Service Division, A.A.R., follow:

REVENUE FREIGHT CAR LOADINGS			
For the week ended Saturday, December 27, 1952			
District	1952	1951	1950
Eastern	94,645	92,690	111,174
Allegheny	114,252	111,581	125,830
Pocahontas	32,345	37,993	45,364
Southern	90,431	81,418	100,931
Northwestern ..	57,045	52,496	62,856
Central Western	87,953	83,984	104,244
Southwestern ..	44,000	41,846	52,008
Total Western Districts	188,998	178,326	219,108
Total All Roads	520,671	502,008	602,407
Commodities:			
Grain and grain products	32,231	31,696	43,714
Livestock	5,914	6,520	6,516
Coal	91,135	110,495	129,160
Coke	14,231	15,238	15,641
Forest products	30,839	21,987	29,069
Ore	17,229	12,191	10,989
Merchandise l.c.l.	53,828	49,740	61,985
Miscellaneous ..	275,264	254,141	305,333
December 27 ...	520,671	502,008	602,407
December 20 ...	710,358	671,362	747,189
December 13 ...	721,252	753,194	773,131
December 6 ...	719,159	773,530	766,895
November 29 ...	670,167	821,776	740,165
Cumulative total 52 weeks ...	37,983,428	40,499,182	38,902,641

For the week ended Saturday, January 3, 1953			
District	1953	1952	1951
Eastern	101,001	105,253	118,566
Allegheny	123,105	130,032	141,451
Pocahontas	41,204	49,062	51,566
Southern	99,803	115,367	118,586
Northwestern ..	58,598	64,021	68,567
Central Western	93,179	94,540	106,453
Southwestern ..	46,195	50,841	57,138
Total Western Districts	197,972	209,402	232,158
Total All Roads	563,085	610,116	662,427
Commodities:			
Grain and grain products	35,507	40,555	47,794
Livestock	6,567	7,292	8,581
Coal	108,165	134,805	141,215
Coke	15,320	16,412	15,094
Forest products	28,350	33,271	37,803
Ore	17,050	14,791	14,407
Merchandise l.c.l.	52,177	54,840	66,087
Miscellaneous ..	299,949	308,150	331,446
January 3	563,085	610,116	662,427

In Canada.—Carloadings for the 10-day period ended December 31, 1952, totaled 92,994 cars, according to

Eleven Months' Net Income Was \$678 Million

Class I railroads in the first 11 months of 1952 had an estimated net income, after interest and rentals, of \$678,000,000, according to the Bureau of Railway Economics of the Association of American Railroads.

The 1952 figure compares with net income of \$567,000,000 for the first 11 months of 1951. Net railway operating income in the 11-month period of 1952 totaled \$964,041,996, compared with \$832,132,965 in the same period of 1951.

Estimated results for November 1952 showed net income of \$84,000,000,

compared with \$72,000,000 in November 1951. The November 1952 net railway operating income was \$110,687,002. During the same month of 1951 net railway operating income totaled \$99,287,053.

In the 12 months ended with November, the rate of return averaged 4.21 per cent, compared with 3.71 per cent for the 12 months ended with November 1951.

Gross in the first 11 months of 1952 amounted to \$9,646,357,451, an increase of 1.7 per cent over the 1951 period, when gross amounted to \$9,489,714,254. Operating expenses in the 1952 period were \$7,341,636,162, compared with \$7,369,948,055, a decrease of 0.4 per cent.

Eighteen Class I railroads failed to earn interest and rentals in the first 11 months of 1952, according to the A.A.R. report.

I.C.C. Approves Modified Truck, Water Rate Pacts

The rate-procedures agreement entered by nearly 400 common-carrier truckers participating in the Eastern Motor Freight Conference of Hartford, Conn., will become effective February 16. A like agreement, entered by the three steamship lines which are members of the Atlantic-Gulf Coastwise Steamship Freight Bureau, will become effective January 22.

Both agreements were made pur-

CLASS I RAILROADS—UNITED STATES		
	1952	1951
Month of November		
Total operating revenues	\$ 908,003,585	\$ 903,344,012
Total operating expenses	661,229,045	669,730,462
Operating ratio —percent ...	72.82	74.14
Taxes	117,832,541	116,769,029
Net railway operating income ..	110,687,002	99,287,053
(Earnings before charges)		
Net income, after charges (estimated)	84,000,000	72,000,000
Eleven months ended November 30		
Total operating revenues	\$9,646,357,451	\$9,489,714,254
Total operating expenses	7,341,636,162	7,369,948,055
Operating ratio —percent ...	76.11	77.66
Taxes	1,169,580,294	1,100,804,634
Net railway operating income ..	964,041,996	832,132,965
(Earnings before charges)		
Net income, after charges (estimated)	678,000,000	567,000,000

the Dominion Bureau of Statistics. The total for 1952 was 4,160,199 cars, compared with a total of 4,166,515 cars in 1951.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
December 31, 1952	92,994	37,313
Cumulative Totals:		
December 31, 1952	4,160,199	1,726,875
December 29, 1951	4,166,515	1,781,029

PRR-NYS&W Connection Opened on January 1

New connection and interchange facilities between the Pennsylvania and the New York, Susquehanna & Western in Jersey City, N.J., completed at a cost of over \$1,600,000, were placed in service January 1. They provide faster and more direct service on freight moving between industries on the Susquehanna's lines in northern New Jersey and the Pennsylvania and its connections.

The project included construction of two new steel and concrete viaducts, the laying of 5,570 feet of new track, and acquisition by the PRR of track-age rights over 6,101 feet of NYS&W line. The connection is located a short distance north of Marion Junction, approximately one-half mile west of the Journal Square passenger station.

Principal structure in the new facility is a four-span "half-through" type steel and concrete bridge known as Croxton viaduct, 556 feet long, which carries the new connection over 10 tracks at the east end of the Erie's Croxton yard. The project required the placing of 63,000 cu. yd. of fill, 2,400 tons of stone and cinder ballast, and 2,500 cu. yd. of concrete.

Work was carried out by Brann & Stuart, Inc., of Philadelphia, contractors, and track forces of the PRR's New York division and of the NYS&W, under supervision of L. P. Struble, chief engineer of the Pennsylvania's Eastern region, and of O. A. C. Thorson, chief engineer of the Susquehanna.

Katy Opens New Yards Near Houston

The Missouri-Kansas-Texas on January 2 shifted its yard operations from downtown Houston, Tex., to newly completed yards at Eureka, a Houston suburb, Donald V. Fraser, Katy president, has announced.

"Increased business activity in the Houston area has necessitated this move for some time," Mr. Fraser said, "and this makes available for industrial development some additional 20-odd centrally located acres of land in

the Houston area." The new Katy yards, about four miles west of the downtown area, will cost more than \$1 million, and will transfer the center of operations for more than 200 Katy employees.

Structural facilities in the new yards include offices; switchmen's and carmen's locker and wash rooms; a storehouse; engine service buildings, and a modern inspection pit. A new 72-ft. scale, largest and most modern on the Katy system, has a weighing capacity of 400,000 lb. Other improvements in the new yards include two-way radio between switch engines and yard office, new intra-yard telephone system, and two telegraph offices, one in the new yard office and one in the passenger station.

This move, which has greatly increased Katy yard capacity in Houston, will speed up Katy freight service in the Houston area, Mr. Fraser said. "It will also help to relieve traffic congestion in the downtown area caused by arriving and departing freight trains." There are 30 yard, repair, servicing and wye tracks in the new Eureka yards. It is estimated the new yard will be able to handle about 1,350 cars at one time. Mr. Fraser pointed out that there are still additional service facilities to be installed, but that the center of Houston operations will now be in Eureka yards.

Kendall of C&NW Heads D.T.A. Railroad Division

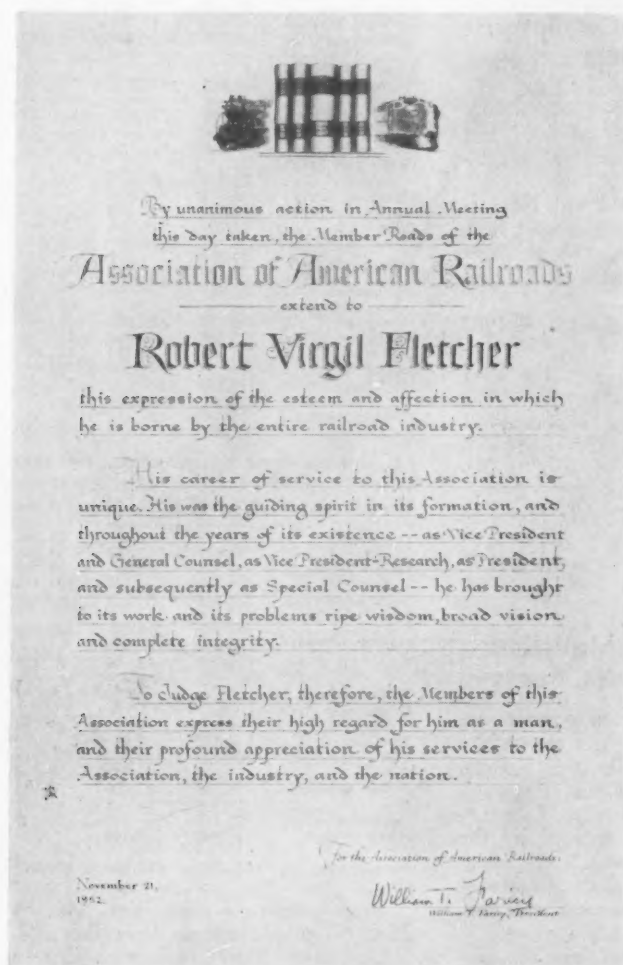
Leon B. Kendall, new director of the Railroad Transport Division of the Defense Transport Administration, comes to D.T.A. from the Chicago & North Western, where he is assistant vice-president.

As noted briefly in *Railway Age* January 5, Mr. Kendall succeeds David E. Smucker in the D.T.A. position. Mr. Smucker returned to the Pennsylvania last November, and subsequently was elected president of the Detroit, Toledo & Ironton.

Mr. Kendall entered railroad service in 1907 with the Boston & Maine, and joined the C&NW in 1910. With the latter road he served as telegrapher; train dispatcher; trainmaster; superintendent telegraph; division superintendent; assistant general manager—Eastern division; assistant to vice-president; and general manager—C&NW System Lines. He became assistant vice-president early in 1952.

RRs in Double Jeopardy, Tuohy Says in Cleveland

The government has placed railroads in double jeopardy in their fight for fair regulation, Walter J. Tuohy, president of the Chesapeake & Ohio, said in Cleveland on January 13. Addressing a group of industrial, civic and political leaders attending a 100,000th-freight-car luncheon at the Carter Hotel, Mr. Tuohy said "the scale is weighted



THIS SCROLL has been presented by member roads of the Association of American Railroads to Judge Robert V. Fletcher, in recognition of his services to the railroad industry. Announcement of Judge Fletcher's retirement on December 31 and a brief outline of his railroad career, which included service as vice-president — law, as special counsel, and, briefly, as president, of the A.A.R., was included in *Railway Age*, December 8, 1952.

against railroads doubly, because we find our competitors being subsidized and promoted, directly and indirectly, by the same government that hedges us in on every side with restrictive legislation."

Railroads ask for no special favors for themselves, Mr. Tuohy emphasized. "It is the American way in any competition . . . that the same rules apply to all. What railroads want is a chance to compete in the game under the same code as the other players . . . We accept the principle of regulation in the public welfare, but we believe that regulation works against the public welfare of a free economy when it trespasses on managerial responsibility and prevents an industry from earning a fair return on its investment."

Congress Gets Truman Budget for Fiscal '54

Proposed appropriations totaling \$12,150,000 for the Interstate Commerce Commission, \$1,168,000 for the National Mediation Board and National Railroad Adjustment Board and \$660,000,000 for the Railroad Retirement Board were included in President Truman's budget for the fiscal year ended June 30, 1954, which went to Congress January 9. President-Elect Eisenhower, who takes office January 20, is expected to modify the Truman proposals; but he is not expected to submit an entirely new budget.

The Truman budget also anticipates that the Defense Transport Administration will require \$110,000 for the 1954 fiscal year. The Presidential powers under which D.T.A. functions are now scheduled to expire with the close of the current fiscal year on June 30. Funds available to D.T.A. during the current fiscal year have totaled \$2,200,000.

Other fiscal '54 appropriations proposed by President Truman included \$593,962,000 for the Bureau of Public Roads, \$200,228,000 for the Civil Aeronautics Administration, and \$236,794,000 for the rivers and harbors work of the Army's Corps of Engineers.

The \$12,150,000 proposed for the I.C.C. compares with appropriations totaling \$11,003,500 provided for commission activities during the current fiscal year. Most of the funds provided for the commission are now lumped under "general expenses," for which the budget proposes \$10,400,000, compared with \$9,319,500 for the current fiscal year.

Outside the "general expenses" grouping are I.C.C. appropriations for "railroad safety" and locomotive inspection. For these activities, the budget proposes appropriations of \$1,010,000 and \$740,000, respectively. The former would be \$35,500 more than the fiscal 1953 appropriation, while the latter would reflect an increase of \$30,500 above the \$709,500 which the Bureau of Locomotive Inspection has received for the current fiscal year.

President Truman referred to the



WINNING INSIGNIA, of more than 100 submitted, in the Rutland Railway contest, is shown above being

handed to Rutland Vice-President Gardner A. Caverly by James Wolfe, North Bennington, Vt., winner.

recommended increases for the I.C.C. in his budget message, saying that this agency and other regulatory bodies had received "severe" cutbacks. The message also had this to say:

"Recent reductions in the appropriations for the regulatory agencies . . . have seriously impaired their ability to carry out the responsibilities assigned to them by law. The administrative expenditures of these agencies are small in relation to the importance of their activities to the nation's economy. The budget provides moderate increases for these agencies to enable them to overcome serious backlogs of pending cases, and to deal more effectively with emerging new problems."

The \$1,168,000 proposed for the Mediation and Adjustment boards compares with \$1,130,000 provided for the current fiscal year. The former figure included \$138,000 for arbitration and emergency boards; and \$441,000 and \$589,000 for salaries and expenses of the Mediation and Adjustment boards, respectively.

The Railroad Retirement Board's \$660-million item was an estimate of the tax revenue to be realized under the Railroad Retirement Tax Act. A proposed appropriation cannot be set out, because the law provides for an "indefinite" appropriation of the total amount of the tax revenue. Out of such revenue the board obtains funds for its administrative expenses under the Railroad Retirement Act; and the budget estimates that \$6,400,000 will be required for that purpose in fiscal 1954.

The board will also have other funds amounting to about \$11 million for administration of the Railroad Unemploy-

ment Insurance Act during fiscal 1954. That Act provides that taxes collected thereunder in an amount equal to 0.2 per cent of taxable payroll shall be available for administrative expenses.

More for Highways

The \$593,962,000 proposed for the Bureau of Public Roads includes \$540,000,000 for the federal-aid highway program, \$20,000,000 for forest roads, \$20,000,000 for access roads, \$8,000,000 for the Inter-American Highway, \$2,000,000 for the Rama road in Nicaragua, \$1,750,000 for public lands highways, and \$2,212,000 for grade-crossing elimination and protection work. For the current fiscal year, the bureau has had appropriations totaling \$358,999,000, including \$325,000,000 for the federal-aid system, \$18,000,000 for forest highways, \$15,000,000 for access roads, and \$999,000 for the Inter-American highway.

The grade-crossing item included in the proposed fiscal '54 program would cash in on authorizations for crossing work which were made before legislation providing for the present federal-aid highway program was enacted. Separate appropriations for crossing work are not required under that program, which permits use for such work of up to 10 per cent of funds made available for highways.

And for Airways

The \$200,228,000 proposed for the Civil Aeronautics Administration includes \$87,009,000 for operation of the federal airways system, \$60,200,000 for the federal-aid airport program, \$20,-

CAR SURPLUSES, SHORTAGES

Average daily freight car surpluses and shortages for the week ended January 3 were as follows:

	Surplus	Shortage
Plain Box	27,137	110
Auto Box	332	43
Total Box	27,469	153
Gondola	9,638	33
Hopper	42,032	9
Covered Hopper ..	669	0
Stock	4,416	0
Flat	634	32
Refrigerator	4,907	0
Other	1,140	25
Total	90,905	252

000,000 for establishment of air navigation facilities, and \$4,000,000 for air navigation development work. C.A.A. appropriations for the current fiscal year have totaled \$143,053,000, including \$82,669,000 for operation of the federal airways system, \$11,091,000 for establishment of air-navigation facilities, \$19,821,000 for the federal-aid airport program, and \$1,750,000 for air-navigation development work.

The \$236,794,000 proposed for rivers and harbors work of the Army's Corps of Engineers compares with fiscal 1953 appropriations totaling \$192,594,000. The former figure includes \$131,868,000 to be spent on "multi-purpose" projects and \$104,925,800 on projects providing only navigation facilities.

Train Runs Through Gates At Washington Station

More than a score of persons were injured when a Pennsylvania train ran through the gates at Union Station, Washington, D.C., on the morning of January 15. No fatalities were reported when this issue went to press.

Brakes on the train, the "Federal," were apparently out of order, a situation of which the crew was aware before reaching the station. As the train passed a tower approximately a mile from the station the tower crew was warned, and was able to telephone ahead to the stationmaster's office at Union Station.

This short warning was enough to clear most station employees out of the path of the oncoming train. Meanwhile, warnings from the train crew prepared passengers for the impending crash. Most of those injured were on the train.

The stationmaster's office is located at the edge of the concourse. The train crashed through the barrier, crushed the stationmaster's office and continued in the direction of the main waiting room. At this point the concourse floor gave way and the electric unit dropped on its tail to the lower level. The train remained connected

and two coaches were dragged into the concourse area also. Another coach rested half inside the concourse and half on the tracks, while most of the remaining cars were derailed. No estimate of total damage was available immediately.

Cleanup work began at once, and by mid-morning it was well under way. Other trains were being delayed only slightly. Terminal officers said they did not expect the wreckage to upset plans for handling the January 20 inaugural crowd.

Federal Barge Lines See Deficit for Fiscal '53

The government owned Inland Waterways Corporation, operator of the Federal Barge Lines, is expected to lose \$176,200 during the current fiscal year, which ends June 30.

This was forecast in President Truman's budget which went to Congress on January 9. For the next fiscal year, ending June 30, 1954, I.W.C. is expected to report a net profit. If the latter materializes, the forecast indicates, it will be the result of a net profit of \$499,100 from I.W.C.'s Railroad division, which operates a switching line between Port Birmingham, Ala., and Ensley. The fiscal '54 loss from barge operations is expected to be \$394,100.

For the 1952 fiscal year, ended last June 30, I.W.C. lost \$785,030 on barge operations. Meanwhile, the Railroad division showed a net profit, so the net loss was \$325,168.

The budget noted that I.W.C. got \$1,000,000 from the Treasury in fiscal '52, thus increasing its outstanding capital stock to the authorized limit of \$15,000,000. It was explained that this means that the corporation is now "entirely dependent on funds derived from operations for replacement of antiquated and worn-out floating equipment, thus precluding needed large-scale capital improvements."

Court Upholds I.C.C. Veto Of Truck-Competitive Rate

The United States Supreme Court has refused to review, thus leaving in effect, a lower-court ruling which upheld an Interstate Commerce Commission order that will require the Chicago & Eastern Illinois to cancel a truck-competitive rate.

The case was docketed in the Supreme Court as No. 463. It came up from the federal district court for the Southern District of Indiana, which upheld the commission in the order now made final.

The rate involved is a commodity rate of 41 cents per 100 lb. on automobiles (and parts in mixed carloads with automobiles) moving from Evansville, Ind., to St. Louis, Mo. It supplanted a 62-cent rate and it was published to meet truck competition.

The commission ordered the 41-cent

CAR SURPLUSES, SHORTAGES

Average daily freight car surpluses and shortages for the week ended January 10 were announced by the Association of American Railroads on January 15 as follows:

	Surplus	Shortage
Plain Box	26,072	146
Auto Box	655	46
Total Box	26,727	192
Gondola	8,537	55
Hopper	41,086	5
Covered Hopper ..	562	0
Stock	6,035	0
Flat	410	37
Refrigerator	4,723	0
Other	200	33
Total	88,280	322

rate canceled, and the C&EI appeal brought the case to the courts. In announcing that it had affirmed the lower-court ruling, the Supreme Court went on to say that Chief Justice Vinson, and Justices Black and Reed thought that "probable jurisdiction" should have been noted and the case set down for argument.

Report Finds Labor Act Has Lost Effectiveness

A Senate Labor Subcommittee has received "as background information" a report which states that Railway Labor Act procedures for settling disputes have in recent years, become merely a "time consuming prelude to a show of economic force and White House attention."

Dr. Gustav Peck, senior specialist in labor of the Library of Congress, prepared the report for the Subcommittee on Labor and Labor-Management Relations. It was made public January 8. "Since it appears that we will not in fact tolerate a national railroad strike, intervention by the White House has become inevitable whenever any of the unions have refused to accept an emergency board report and have fixed a strike date," Dr. Peck said.

In the past decade the procedures of the act have frequently been supplemented by White House intervention and negotiation and by seizure and injunctions to avoid strikes, he said. He added, however, that seizure and injunction "are instrumentalities not within the terms of the Railway Labor Act."

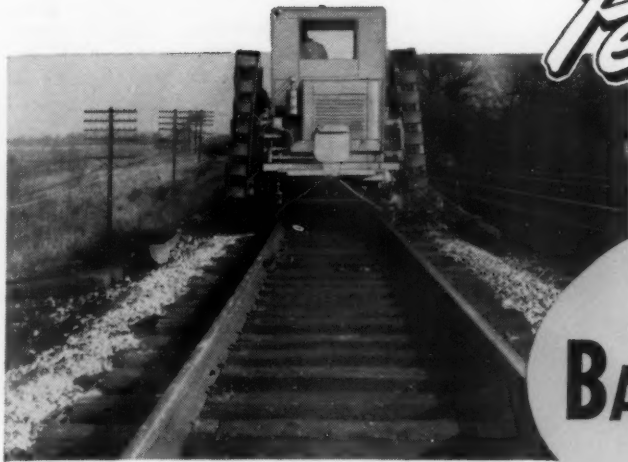
Senator Humphrey, Democrat of Minnesota, prefaced Dr. Peck's report with a statement that it "is offered solely as background information for the United States Senate by a qualified scholar in the field."

The senator is chairman of the subcommittee. He said his group has been studying the problem of "emergency (Continued on page 45)

NOW YOU CAN PLACE BALLAST IN

Perfect Position

FOR TAMPING!



The track ahead of the unit is always empty for renewing and replacing ties.

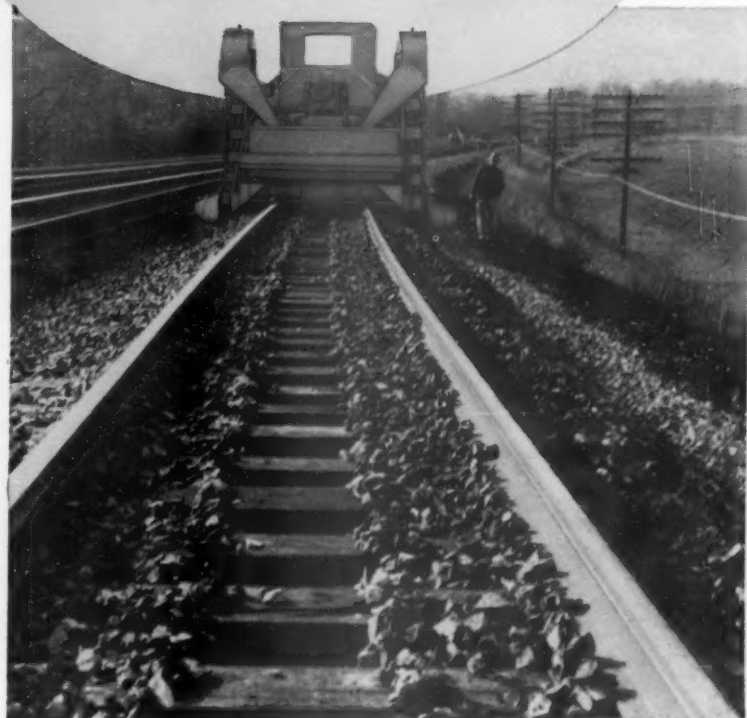
An important new machine which distributes ballast for tamping faster, more efficiently, *more economically* than a crew of thirty men. Controlled by one man, this unit was designed as a companion piece to the McWilliams Tie Tamper, but it will speed and improve any tamping operation . . . either hand or mechanical.

In operation, this machine picks up ballast from the intertrack space and shoulder, and deposits it behind the machine in the best possible position for tamping . . . both inside and outside the rail. It will handle any type of ballast for any desired track raise.

The experience of a major eastern railroad is typical of what this machine will do for you. In that application *it is saving the road up to \$400 a day* by replacing a crew of thirty men . . . with additional savings from better tamping due to more uniform ballast distribution.

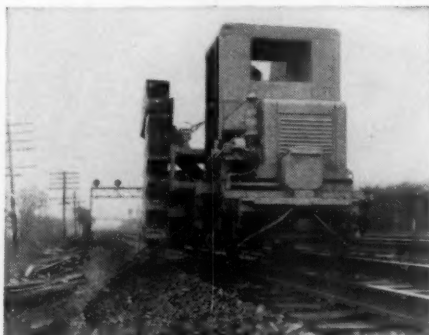
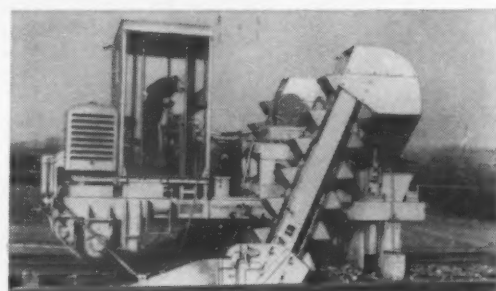
Write for Bulletin No. 101.

McWILLIAMS BALLAST DISTRIBUTOR



Self-powered machine distributes ballast at rate of 800 to 1000 feet per hour.

All operations of the McWilliams Ballast Distributor are controlled by one man.



This versatile machine operates perfectly on either high or low shoulders.

Railway Maintenance Corporation

PITTSBURGH 30, PA.

DESIGNERS AND MANUFACTURERS OF: McWILLIAMS MOLE AND SUPER MOLE . . . McWILLIAMS TIE TAMPER, CRIB CLEANER AND BALLAST DISTRIBUTOR . . . R. M. C. RAIL JOINT PACKING

"UNIT EXCHANGE"

here's how it works



1

YOU ORDER REBUILDS of major Diesel locomotive components from your nearest Electro-Motive Branch. (Rebuilt traction motors available at nine convenient depots.) We ship you fully guaranteed factory-rebuilt assemblies from our "Unit Exchange" pool. In most cases, delivery can be made in your shop within 24 hours!

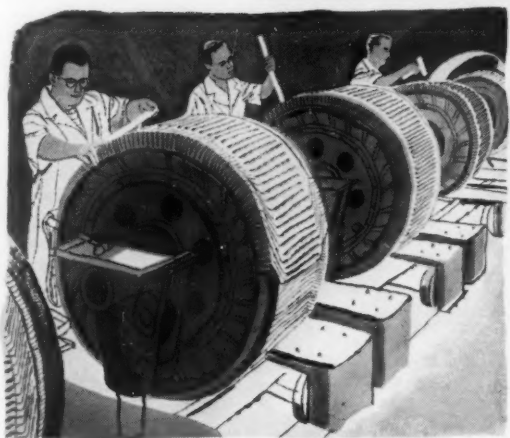


2

YOU RETURN WORN UNITS after you have received the rebuilds. No need for you to keep locomotives out of service waiting for assemblies to be rebuilt. With "Unit Exchange" we "carry the spares" for you—you save considerable investment in inventories of parts and assemblies.

"UNIT EXCHANGE" IS SIMPLE

here's how you save



3

WE REBUILD YOUR WORN UNIT by production-line methods—automatically incorporating the latest design and parts improvements. Every unit we rebuild carries the same guarantee as a new assembly. No guesswork about its performance!



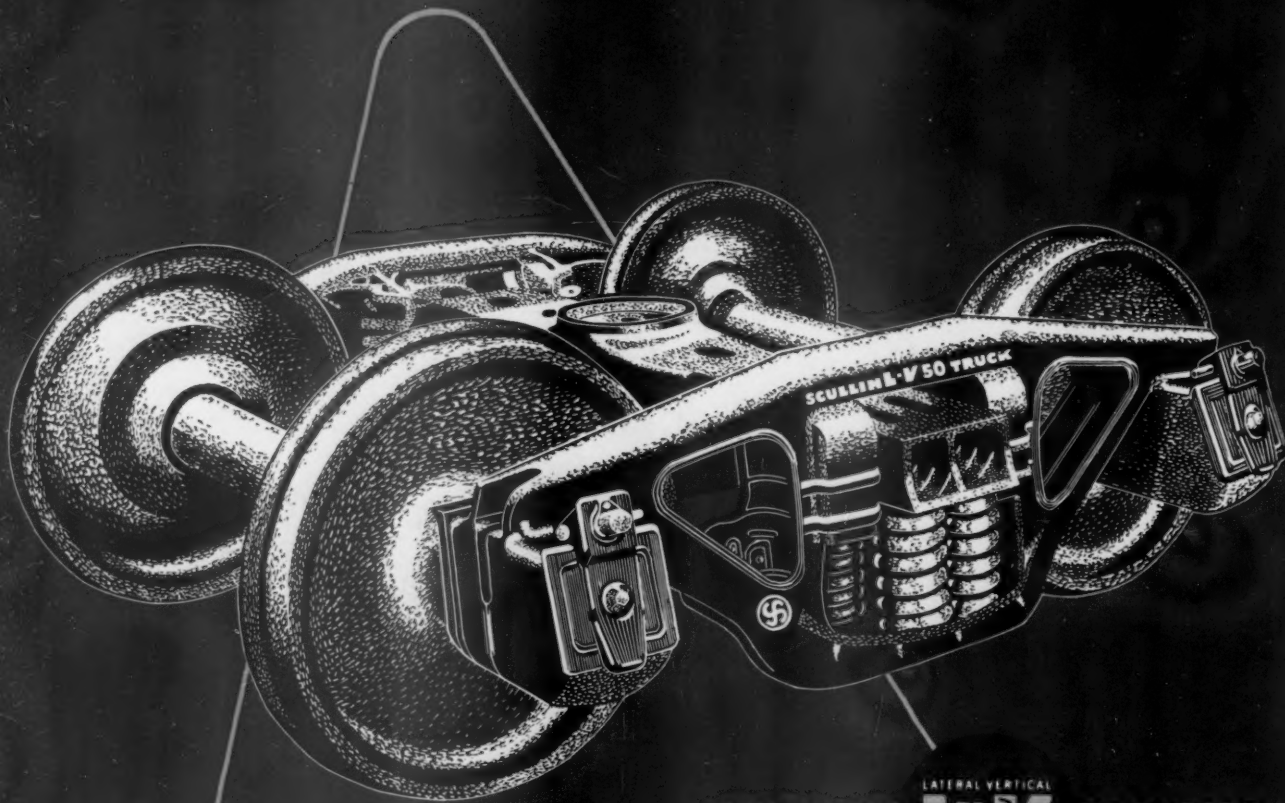
4

WE BILL YOU only for the labor and materials needed to put your worn unit into the same top-standard condition as the "Unit Exchange" assembly you received. Low, flat-rate prices itemized in our Factory Rebuild Catalog are the same on "Unit Exchange" as on units we rebuild and return. You get the same top-quality work—and pay no premium for "Unit Exchange."

**ELECTRO-MOTIVE DIVISION
GENERAL MOTORS**

LA GRANGE, ILLINOIS, HOME OF THE DIESEL LOCOMOTIVE

GENERAL MOTORS
LOCO MOTIVES



SCULLIN  TRUCKS

LATERAL VERTICAL
CUSHIONED MOTION

THE SMOOTHEST TRAFFIC-BUILDERS
BETWEEN LCL AND YOUR RAILS



NEW YORK
CHICAGO
BALTIMORE
RICHMOND, VA.

SCULLIN STEEL CO.

SAINT LOUIS 10 MISSOURI

Photo courtesy
Canadian Pacific
Railway



Built for RAILROAD use...

with
railroad watch
precision



"OXWELD" W-24-R RAILROAD BLOWPIPE

This is the only blowpipe made especially for the service of railroads—rugged, long-lasting, economical, easy to maintain. You can rely on the OXWELD W-24-R Blowpipe for long, dependable service under *any* operating condition. Its efficient design and high standard of workmanship is based on OXWELD's skill and practical experience gained by working exclusively with railroads.

Write to OXWELD or ask a representative for further details.

WIDEST WORK RANGE

17 welding heads available — to perform a complete range of manual welding and also heavy heating and flame-cleaning.

FOR MEDIUM- OR LOW-PRESSURE OPERATION

Injector principle means steady pressure, constant flame, quality welding results — with either medium- or low-pressure operation.

CHROMIUM PLATED WELDING HEADS

Plating eliminates weld metal sticking to tip and also reduces pick-up of radiated heat.

SEPARATE INJECTORS

Each welding head, with its own injector, assures stable, soft flame.

CUTTING ATTACHMENT AVAILABLE

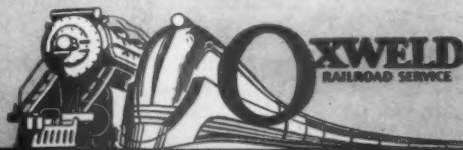
Light plate as well as 5-in. thick steel can be flame-cut with the CW-24-R Cutting Attachment — flame-gouging nozzles fit attachment to speed repair work.

WELDING HEAD SIZE NUMBERS

Head numbers indicate oxygen and acetylene consumption in cubic feet per hour with neutral flame in use. Pick the head you want at a glance.

OXWELD RAILROAD SERVICE COMPANY A Division of Union Carbide and Carbon Corporation

UCC
Carbide and Carbon Building Chicago and New York
In Canada:
Canadian Railroad Service Company, Limited, Toronto



SINCE 1912—THE COMPLETE OXY-ACETYLENE SERVICE FOR AMERICAN RAILROADS

The term "Oxweld" is a registered trade-mark of Union Carbide and Carbon Corporation.



Utilizing nickel-containing alloys, this star performer of the Baldwin-Westingshouse line of locomotives, made by Baldwin-Lima-Hamilton Corporation, is now more powerful than ever . . . 1600 hp per unit available for traction with full power output ensured up to 8000' altitude. Scores of other features also help this locomotive give a big return on the investment.

New Baldwin-Westingshouse Multi-Unit Road Freight Locomotive

DEVELOPS INCREASED POWER

for Extra Performance

WITH THE HELP OF NICKEL-CONTAINING ALLOYS

Increased tractive effort . . . ability to handle heavier loads . . . smoother, easier operation and less maintenance . . .

These and other important "extras" stem from basic changes in *design, materials* and *manufacturing methods* used to produce the new type Baldwin-Westingshouse RF-16 multi-unit Diesel Electric Locomotives.

Components designed to take advantage of the high mechanical properties afforded by nickel alloy steels include wrist pins, cam rollers, inlet and exhaust valves. Liners and heads are cast in nickel iron, and the superchargers utilize Ni-Resist and chromium-nickel austenitic stainless steel. Car body

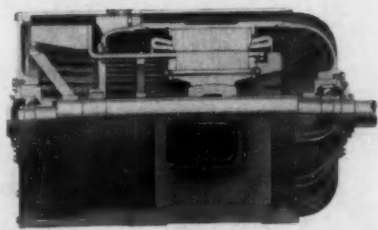
framing is of high strength low alloy steel, and throughout are scores of miscellaneous nickel-alloyed iron and steel components.

Additions of nickel to iron and steel permit reducing bulk and deadweight of fabricated parts without sacrificing strength or safety. Send us details of your problems for our suggestions. Write us, today.

At present, most of the nickel produced is being diverted to defense. Through application to the appropriate authorities, nickel is obtainable for the production of engineering nickel alloy irons and steels for many end uses in defense and defense supporting industries.



THE INTERNATIONAL NICKEL COMPANY, INC. 67 WALL STREET
NEW YORK 5, N. Y.



High-Slip Motor

A totally enclosed, fan-cooled, high-slip induction motor, designed for use in acceleration of high-inertia loads such as punch presses, centrifuges, hoists, etc., has been announced by the General Electric Company's Small and Medium Motor Department, Schenectady, N. Y.

Designated as Type KRX, the new motor is said to be as much as 30 per

cent smaller and 40 per cent lighter than conventional totally enclosed fan-cooled high-slip motors. The space and weight reduction is the result of the motor's extended-bar design which provides efficient dissipation of the increased heat normally generated by high-slip motors.

Low-resistance rotor bars are extended on one end and pass through a rotating baffle plate. Beyond the baffle plate, the bars are brazed to strips of high-resistance metal, shaped to form a radial-blade fan. These fan blades, themselves, provide the higher rotor resistance necessary for high-slip characteristics. Thus, most of the rotor heat develops where there is a direct transfer to the cooling air, i.e., outside the motor enclosure.

The motor is available in 30 to 150 hp. at 900 and 1,200 r.p.m., 5-8 and 8-13 per cent slip. Voltage ratings are 220, 440 and 550.



Portable Electric Power Winch

Having a single line capacity of 2,000 lb. at 55 ft. per min., this Tugger is said to be well adapted for permanent installations for spotting freight cars, retrieving car puller cable, or other pulling and lifting jobs common to railroad operations.

Designated as Model EL and marketed by the St. Anthony Machine Products Company, Minneapolis 6, Minn., its motor is instantly reversible

and is operated by a convenient control lever. A cam-acting mechanical brake is automatically applied when the motor is shifted to neutral. The device is equipped with two gripper-type carrying handles to facilitate moving. Gears are completely enclosed and run in a continuous oil bath. Its dimensions range from 12 in. by 32 in. for the smallest model to 12 in. by 42 in. for the largest.

Power-Driven Scythe

Hoffco, Inc., Richmond, Ind., has recently incorporated several new engineering developments into the Scythette, a power-driven portable scythe designed to trim weeds, reeds and grass on all types of terrain and under water. Foremost among the new features are the 2-hp., 4,000-r.p.m. engine of the single-cylinder, 2-cycle, 2-port type, a float-feed carburetor with a built-in push-button dump valve, a manually operated throttle control with



The Hoffco Scythette shown cutting a heavy stand of weeds.

spring return, and a 1-quart gasoline tank. Other standard specifications of the Scythette include a total weight of 26 lb., a length of 54 in., a 20-in. cutter bar, and an over-the-shoulder carrying strap.

Freight Car Paint

Recommended as a two-coat system without prime coat and for sandblasted or pickled surfaces only, Dulux Direct-to-Metal paint for freight cars has been introduced by the Industrial Finishes Division, E. I. Du Pont de Nemours & Co., Wilmington, Del.

This product is said to reduce paint consumption and application time by as much as 33 per cent in comparison with the three-coat system. Elimination of the prime coat simplifies stocking problems and the time for holding cars in the shop. Moreover, no special equipment is required for application. At present, the high gloss, two-coat product is available in one shade of red only.



New G-E Tester Gives Fast, Precise Inspection of D-C Armature Windings

Fast, one-step inspections of d-c armature windings are now possible in railroad shops with General Electric's new winding insulation tester. This economical new equipment is the first of its kind for low-impedance, d-c testing. It provides quick, exact tests of turn-to-turn, coil-to-coil, and winding-to-ground insulation in d-c

armatures of any size, rating or winding impedance.

The new tester gives a positive, visual indication of faulty insulation and short circuits, as well as accurate measurement of applied peak voltage. For full details, consult your nearest G-E representative. *General Electric Company, Schenectady 5, New York.*

152-38

You can put your confidence in—

GENERAL  **ELECTRIC**

FOR JUNIOR EXECUTIVES

The Elements of

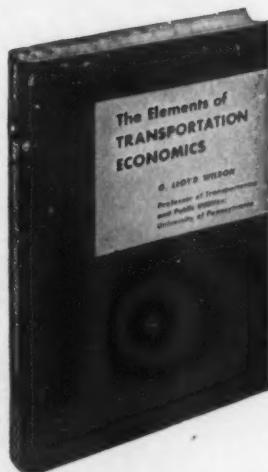
TRANSPORTATION ECONOMICS

by G. Lloyd Wilson

Professor of Transportation, University of Pennsylvania

To get ahead in the transportation field, you must have a grasp of the larger issues of the subject. You can't get by, for instance, without an understanding of how transportation, industry and commerce mesh together—and how this set-up will develop in the future. This is basic and your key to understanding it is familiarity with basic transportation economics!

Do you know how Transportation determines whether a given industry is to be conducted as a large, medium or small-scale enterprise? What "place utility" is? How "cross-hauling" can be justified? Can you name six well-defined channels of marketing manufactured goods? Or fifteen principal classes of transportation instrumentalities? These and many more answers are yours in Dr. Wilson's keenly-written analysis. You will find exactly what you need in Dr. Wilson's book.



ADVANTAGES OF TRANSPORTATION ECONOMICS

1. **Covers the Field:** Explains and relates every aspect of transportation economics.
2. **Expertly-written:** Dr. Wilson draws on years of study, business know-how, and specialized teaching experience.
3. **Up-to-date:** Based on current practice and statistics.
4. **Compact, Concise:** The meat of the subject—for busy executives.
5. **Helpful Study Guide:** Selected bibliographies guide your further study.
6. **Diagrams, Tables:** Easily-read tables and diagrams speed your grasp of key points.
7. **Cites Actual Practice:** Examples are from actual business.
8. **Convenient Size:** Lightweight, easily carried in your pocket.

Contents

Transportation and Economic Development—Some Fundamental Economic Principles Underlying Transportation—The Relation of Transportation to Prices—Transportation and Industrial Production—Transportation and Agricultural Development—Transportation and Marketing—The Instrumentalities of Transportation—The Railroad Organization.

178 pages 5 x 7½ illus. cloth \$2.95

FREE EXAMINATION COUPON

Railway Age, Dept. RA1-19-53
30 Church St., New York 7, N. Y.

Please send me for Free examination a copy of The Elements Of TRANSPORTATION ECONOMICS. If after 10 days I am not completely satisfied, I will return the book and owe nothing. Otherwise, I will remit the price of \$2.95 plus a few cents for postage and handling.

Name

Address

City State

Benchmarks and Yardsticks

IN THIS SPACE in our November 24 issue attention was directed to the observations of President T. D. Beven of the EJ&E regarding the difficulty of enforcing Rule G. H. L. Keller, general chairman of the O.R.T. on the Atlantic Coast Line, believes that conditions today in this regard are a lot better than they used to be. He writes, in part:

"I have been railroading 36 years, and when I started as a young man telegraphing, I worked around yard offices and everywhere on the railroad. As general chairman I am still in contact with men of all branches all over the railroad. . . .

"When I started railroading there were no boards to keep the officials from discharging employees; still no one was discharged for being drunk or drinking unless he just could not remain sober long enough to be of any service; then the local officials would finally get tired of it and let him go. But nowadays railroad employees are discharged for drinking while off on their two days of rest, and miles from the railroad. There is as much difference between now and the old days as there is between night and day. During my first ten years of railroading it was not uncommon to see an employee come on duty under the influence of liquor and nothing was said so long as he could do his work; but during the past fifteen or twenty years I cannot remember seeing or even smelling liquor on a railroad employee. Today it is a frequent thing to hear of a railroader being a pastor of some church, but not once did I hear that in the old days. We have several preachers right here now in my own area. I will take the first 100 railroaders on a seniority roster and match their standards with 100 businessmen in any town. Yes, I will go further and match them against a like number of railroad officials too."

It is heartening to have such a favorable report of the high standards of sobriety prevailing among railroad employees in the Southeastern part of the country. The fact remains, however, that abstemiousness is not yet as prevalent, nationally, as some responsible leaders in the railroad industry believe it should and could be. What Mr. Keller says about relative sobriety as between railroaders and employees of other industries is, no doubt, true—but there are few other industries where so many lives hang on "all there" alertness by employees as in railroad operating departments.

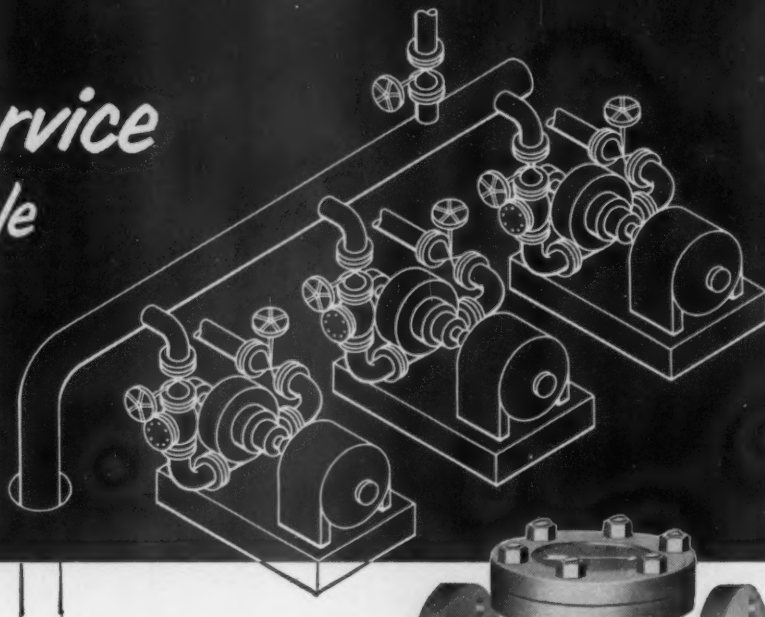
The railroads have no proper concern with employees' off-hours behavior, where such behavior has no relationship to their efficiency on the job—but, where employees' duties involve train movement, managerial concern for employees' sobriety is not only proper, but is a primary responsibility.

J. G. L.

*It's not what you Pay for Valves
... it's what they Cost you*

*on Water Service
for example*

(A Case History)

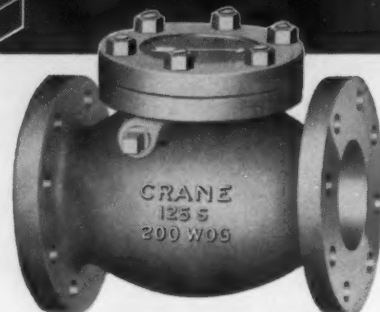


What you pay for valves is not the final criterion of value. Not when maintenance costs can quickly equal or exceed purchase price. And a valve that threatens production is no bargain at any price ... no attraction to a thrifty buyer.

Take this case in a large eastern paper mill. A single bank of water pumps supplied the entire mill. Leaky check valves at these pumps were a constant problem. Regularly, the checks needed replacement, only to be found leaking between pumping cycles a few months later.

A change-over to Crane Quality Check Valves put a complete stop to this costly maintenance and threat to production. Installed well over a year, Crane checks are protecting the mill against loss of water pressure at no added cost.

Today, more than ever, you need greater assurance of quality in piping materials. You get it in Crane Valves—the recognized standard of quality with thrifty buyers in every industry. Your big Crane Catalog offers complete selections for all needs; your Crane Representative is always at your service.



Crane Check Valves are made in all types, in brass, iron, steel, and alloys. See your Crane Catalog.



CRANE VALVES

Crane Co., General Offices: 836 S. Michigan Ave., Chicago 5, Illinois
Branches and Wholesalers Serving All Industrial Areas.

VALVES • FITTINGS • PIPE • PLUMBING • HEATING

WHAT'S THE GREATEST NEED FOR RAILROAD PROSPERITY?

It is an event worth noting when a competent and veteran analyst of railroad performance reaches the conclusion that subsidy to long-haul trucking is not a controlling factor in the diversion of freight traffic from movement by rail; and that comparative costs (*not rates*) of highway and rail transportation are not a determining factor either. This opinion was expressed in an address, available in pamphlet form, made recently by Fairman R. Dick, the widely known investment banker.

The occasion was a dinner given in New York by the General American Transportation Corporation, and Mr. Dick's talk was centered mainly on the advantages to railroads and their customers which the speaker believes to be inherent in such equipment as General American's so-called "DF" car. The analysis went much further, however, than any one type of car equipment and questioned a good many generally accepted opinions about competitive transportation.

How can comparative costs cause diversion of traffic from rail to highway—the speaker asked, in effect—when the average ton-mile cost of highway movement is still four times the cost of rail movement, in spite of the help that highway transportation receives from the taxpayers?

Mr. Dick went on to estimate that non-local truck ton-mileage may well be 20 per cent of railroad freight volume, with revenue 90 per cent of railway freight revenue. Some of this traffic would probably continue to move by highway despite anything the railroads might do in the way of rate and service improvements, but Mr. Dick, after several computations, announced that

he "ended up" with \$3.1 billion in revenues for highway traffic which he believes is subject to recapture by the railroads—a sum equivalent to a third of present rail freight revenues, but representing only about 10 per cent of railway ton-miles.

Even after allowing for rate reductions necessary to reattract this volume of gross, Mr. Dick estimated that it might be possible to carry down an additional \$2 billion to net before taxes, if redivable freight traffic were actually recaptured.

Plenty of Possibilities . . .

Such imaginative figure-work might miss the bull's eye by a considerable margin, and still leave an opportunity for increased earnings that should be highly attractive. What is needed, then, to enable the railroads to have a chance to earn such increased net revenue—whether it be \$2 billion, or only 20 or 10 per cent of that amount? The obvious answer, aside from good service, must be more freedom in making rates. So far, most railroad talking in favor of less restrictive rate regulation has emphasized the "time lag"—both nationally and intrastate. But the "time lag" is only one of the objectionable features to present restrictions—the long-and-short-haul clause is just as bad.

As a matter of fact, any restriction whatever on pricing practices—except those forbidding gross and arbitrary discrimination, extortion, or rates clearly below direct costs—is an anachronism in transportation regulation. Restrictions more severe than these would be justi-

fiable only under conditions of complete monopoly. Such harmful restrictions should be speedily terminated, and they would be, if business and industry could be induced to support such restoration of economic freedom to the transportation business.

. . . Waiting for Opportunity

If the railroads are not given the opportunity to function as a competitive business—with an administration in power in Washington which more closely reflects business thinking at its best than at any time in a generation—just when can the railroads expect to get this opportunity? And how much longer can they continue to exist as private business in a competitive market, when they are denied the freedom of action that all other private business has, and must have, to thrive, or even survive, under competition?

There are some people who are inclined to lose their interest in complex and outdated transportation regulation so long as the railroads are not practically in the hands of the sheriff. Thus the momentum toward revision in transportation policy which was built up in the late thirties was completely dissipated during World War II, and interest had to be revived, starting from scratch. It would be folly indeed to make the same mistake twice, within such a short space of time. But there are plenty of sirens already on the job, seeking to lead the railroads and the shipping public into just that temptation.

ABSURDITY IN LABOR RELATIONS

There has been a great deal of discussion and public education aimed at protecting the railroads' revenues. But political restrictions which have the effect of arbitrarily inflating expenses are just as dangerous to railroad solvency as political attacks on revenue. Specifically, a governmental set-up which puts the railroads in jeopardy of hundreds of millions of dollars of arbitrary and retroactive wage expense for alleged "increased productivity" (an increase accomplished, not by labor, but by better machines) betrays an urgent need for remedial attention. Concerning this need the railroads are rather less articulate than circumstances would appear to justify.

If any man or company or institution is to be put in jeopardy of as much as a half-billion dollars, a simple instinct for justice would suggest that a cause of this magnitude would surely be entitled to hearing by a court of demonstrated responsibility and comprehensive knowledge of the field in which the action lies.

It is not disrespectful to the referee in this proceeding, Professor Guthrie, or of his attainments to observe that there has fallen upon him for decision a question of such weight—the solvency or insolvency of the railroad in-

dustry—that it would be worthy of a bench which would include the most mature judicial talent in the country. A system of governmental dealing with transportation which results in the imposition of problems of such complexity and importance upon shoulders accustomed only to minor burdens is, clearly, a faulty system. But what's being done to change the system?

PROBABLE RAILROAD ATTENDANCE AT ATLANTIC CITY CONVENTIONS

So many people have been guessing about how many railroad men are likely to attend or not attend the conventions and exhibition in Atlantic City this coming June that we decided to try to get some estimates from the interested railroad people themselves. We addressed the heads of the mechanical and purchasing and stores departments of the larger railroads, giving them the figures on their companies' registrations at the Atlantic City conventions in 1947, and asked them to reveal (but not for publication by individual railroads) how many people they expect to have in Atlantic City this coming June.

To date we've heard from the heads of purchasing departments of 40 large railroads which, in 1947, had 308 representatives at Atlantic City for the convention of the Purchases and Stores Division. These same 40 companies expect to have 467 representatives in Atlantic City for the June 1953 convention—an increase of 51 per cent. The total registration of railroad men at the P. & S. convention in 1947 was 329 and—assuming that the railroads as a whole will have the same ratio of increased attendance as these 40 large companies expect—the total 1953 registration at the P. & S. convention ought to be 497.

We've heard so far from the heads of the mechanical departments of 29 large railroads and their estimates for 1953 attendance are running almost exactly equal to actual attendance in 1947. Total attendance at the Mechanical Division convention in 1947 was 780.

Besides these two conventions there will be at Atlantic City, at the same time, a meeting of the member roads of the Association of American Railroads—which draws top officers from all the major railroads—a meeting of the American Short Line Railroad Association; and the Pan-American Railway Congress.

From the foregoing, it would appear that total attendance by railroad men in the echelons most manufacturers want particularly to reach (i.e., mechanical and purchasing officers) is practically certain to be substantially greater than in 1947; while the total attendance from the railroads will very likely be the greatest on record; and this will undoubtedly be true as far as top-flight executives are concerned.



The Santa Fe looks upon its "RDC" cars as a new tool for providing an attractive service at a modest cost.

Passenger Service Can Be Profitable . . .

How the Santa Fe Los Angeles-San Diego Service Makes Money

A STORY OF CONTINUED GROWTH

The Santa Fe first modernized its Los Angeles-San Diego service on April 17, 1938, by replacing standard equipment on two of four daily round trips with a new, streamlined "San Diegan." This was about the time San Diego began its phenomenal growth—which is continuing even today. The first streamliner yielded an operating profit from the day it went into service. Traffic continued to grow until, on June 8, 1941, a second streamlined "San Diegan" and an additional round-trip service were added. In recent years, patronage has been diminished somewhat by the inroads of highway and airplane competition, but has held up sufficiently well to justify the addition of the new service last May. With the "RDCs" in service, the "San Diegans" continue as 8-car streamline trains, with up to 3 extra coaches (the train limit) added on week-ends. Although there has been a marked redistribution of passengers between the various trains, following introduction of the new service, the total volume of traffic on the line has increased 12 per cent.

An out-of-pocket operating profit, and definitely improved public and community relations, have been won by the Atchison, Topeka & Santa Fe as the result of the additional passenger services introduced on its Los Angeles-San Diego "Surf line" in May 1952. The new service consists of two additional round-trips—one being non-stop—operated with a single train composed of two of the Budd Company's "RDC-1" cars. The new trains increased to seven the round-trips operated on this line: the five round-trips previously operated being continued substantially unchanged.

New Mileage

The additional train mileage was occasioned by the tremendous population growth of the Los Angeles and San Diego areas in the years since World War II, a growth which is still continuing. Competition from the highways and from the air—particularly from intrastate air lines charging low fares—was, and still is, very intense. In the interest of preserving its position as a dominant passenger carrier between the two cities, the Santa Fe management decided that the only way it could draw traffic away from the competition would be through the provision of additional service. That the new trains have achieved their purpose of attracting new traffic is evidenced by the fact that the total volume moved on the line has increased by 12 per cent since the new service was added.

The Santa Fe is the only railroad with passenger serv-

ice to San Diego and the shore communities south of Los Angeles. Public expectation was that the railroad would not improve its existing service—though that was admittedly good—but would be content to “let it ride” in spite of increased demands for accommodations. Consequently the reaction to the Santa Fe’s voluntary increase in service was very favorable. All departments report that the company’s relations in the territory have

improved markedly, to the direct benefit of the railroad.

One of the new “RDC” round trips is operated on a 2 hour and 15 minute non-stop schedule—30 minutes faster than any scheduled train previously operated over this line. This schedule requires an average speed of 57 m.p.h. for the 128-mile trip. The other “RDC” round trip, with ten intermediate stops, is made at an average speed of 46 m.p.h. The track is maintained to 100 m.p.h. standards, with automatic train-stop equipment on all passenger trains, including the “RDC” cars.

“RDCs” Use Four-Man Crews

The two-car RDC trains are manned by a four-man crew (engineer, fireman, conductor and flagman) plus a uniformed coach attendant.

In order to control loads on the two non-stop runs, these are operated as “reserved seat” trains with a 50-cent charge for each reservation.

The two cars are equipped with Heywood-Wakefield model 1100 walk-over seats with a high back and a foam-rubber headrest pad. Mohair upholstery and cloth headrest covers are used throughout. Each car is divided into a smoking and a non-smoking section. Before being placed in service, the cars were equipped at the Santa Fe’s Barstow shops with the Union Switch & Signal intermittent train-stop receiving bar—one to a car—and controls. The copper shunt-shoe which comes as standard equipment on the cars and is designed to maintain a good cross-track shunt circuit was retained. The cars were purchased equipped with body-mounted pilots.

In actual service, the cars have proved mechanically very satisfactory, and their operating performance has been outstanding in spite of the difficult requirements of the local schedule.

The Santa Fe considers the operation of the Budd “RDC” cars in this service a good economic proving ground for their possible development for other low-fare



The Sunday afternoon north-bound “San Diegan” at the Santa Fe’s San Diego depot.

services. The currently effective intrastate fares between Los Angeles and San Diego are believed to be the lowest (per mile) of any railroad fares in the country. These local one way and round trip fares currently average about 1.8 cents per mile.

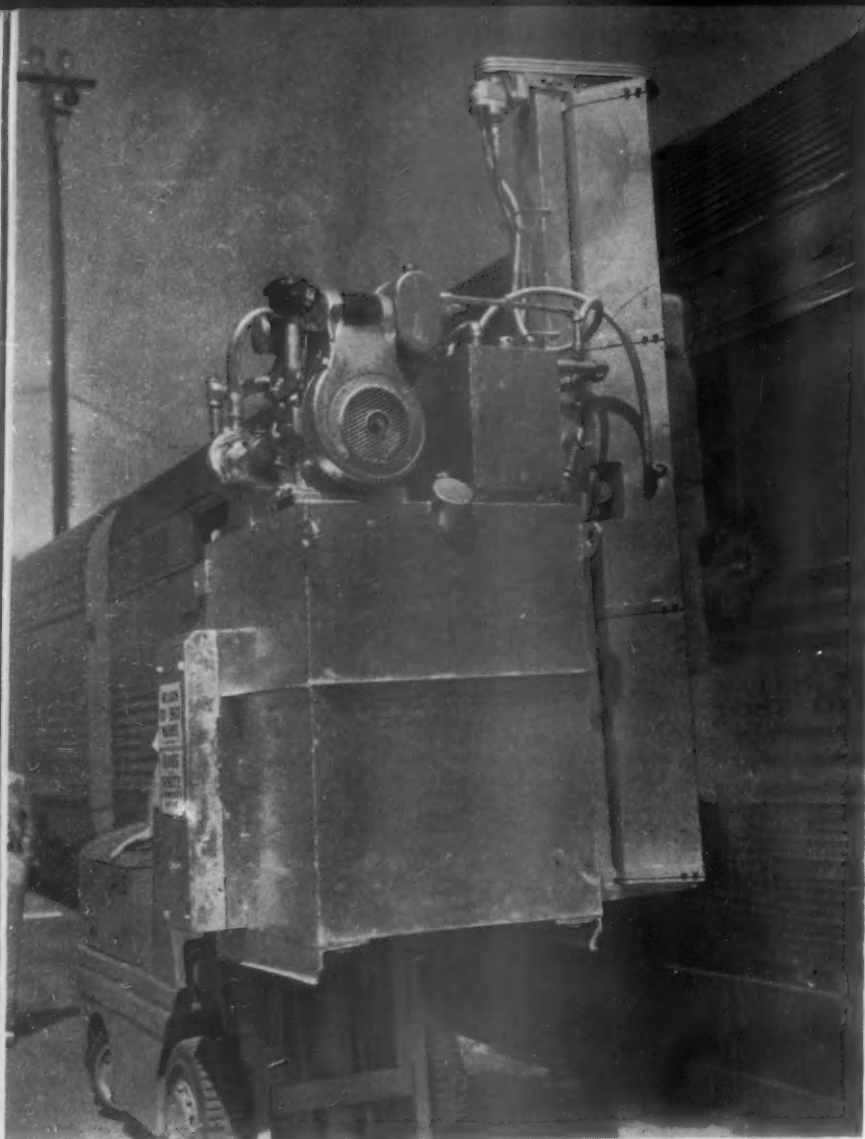
The selection of the "RDC" car for this new service was a frank experiment for the purpose of developing the potentialities of this radically different type of equipment. The results have been so satisfactory that the railroad is considering their use elsewhere on the system.



The "RDC" cars are producing new traffic to and from intermediate stations on the Los Angeles-San Diego line.



The Santa Fe route between Los Angeles and San Diego is known as the "surf line" because it closely parallels the shore for over 40 miles. The "San Diegan" north of Del Mar.



Details of the Wilson washer unit applied to Yale two-ton fork-lift truck.

Fast, economical method of cleaning car windows adds to passenger enjoyment

At Albuquerque . . .

Movable Car Washer Does Good Job

Difficulty experienced by the Santa Fe in washing the car windows of six through trains daily, east and west bound out of Albuquerque, N.M., while unloading and loading passengers, has been largely solved by installing two Wilson movable washers. This is a machine built by the Ross & White Co. of Chicago and successfully used in cleaning truck and van bodies. It now for the first time has been adapted for washing railway equipment. Santa Fe transcontinental passenger trains are thoroughly cleaned in fixed-type mechanical washing machines at terminals in Chicago and Los Angeles, but need window washing at intermediate points such as Albuquerque, where the work was formerly done by hand.

The two Wilson washers, mounted in this instance on Yale & Towne 2-ton lift trucks, are readily moved one to each side of any of the three tracks on which incoming trains arrive. The trains are washed either while standing or as they leave the station, in the latter case being pulled past the washing machines at a speed of 2 to 3 m.p.h. which takes 5 to 7 min. for a 15-car train. Car sides are washed from a point slightly above the

windows down to the bottom of the car side in a single pass with a limited amount of clear water. The resultant improvement in the condition of the windows, which is pleasing to passengers, is accomplished with minimum expense.

Many Advantages

Other advantages shown by Wilson washers in this application include: (1) no fixed foundation, water piping, electrical wiring or special drainage are required, as the unit is portable and the small quantity of water used dries rapidly or drains through the ballast; (2) the lift truck is available for other uses—such as loading baggage cars or icing diners—when not needed for washing, as the washing equipment can be quickly removed; (3) the washers may easily be transported to another point if a change in operating conditions makes train washing elsewhere desirable; (4) no detergents are required to get clean windows; (5) express-refrigerator and any other cars may be washed if necessary during periods when the washers are otherwise idle.



Wilson portable car washer in service at Santa Fe passenger station, Albuquerque, N. M.

The two movable washing machines at Albuquerque are used to clean an average of about 100 cars a day with a single operator on each machine. A total of 9,800 cars were cleaned in the first three months after the machines were installed. It is reported that examination of the brushes showed little evidence of wear in that period.

Washer Construction

The Wilson railroad car washer consists essentially of two units: a lift truck rated at 4,000 lb. 24 in. from the vertical, complete with fluid-drive features; and the Wilson washer proper, which includes all mechanical equipment necessary for washing passenger cars. The washing unit can be easily removed from the truck in about one minute.

The washer is completely self-contained, with its own supply of water in a 250-gal. tank on top of which is mounted a 9-hp. air-cooled high-speed gasoline engine which furnishes power to operate a fluid pump and a water pump. The fluid pump delivers oil to a fluid motor with V-belt drive to the 9-ft. by 18-in. diameter washing brush. The water pump delivers water to the water nozzles at sufficient pressure and volume to wet the car side and, after scrubbing, to rinse it well. An 18-gal. oil reservoir holds the hydraulic fluid.

The brush is Mexican white tampico fiber, the same as normally is furnished with Blackhall fixed-type car

washers. The 9-ft. brush revolves either clockwise or counterclockwise, at the option of the operator, at a speed fast enough for thorough scrubbing of the car sides.

There are two spray pipes with nozzles, one for wetting down the side of the car prior to contact of the scrubbing brush and one final rinse to wash off the dirty water.

The entire operation and control of this machine is at the fingertips of the lift-truck operator.

The Wilson washer, mounted on a lift truck and completely loaded with water, weighs approximately 12,000 lb. The brush can be moved in and out of the washing position through a control conveniently located on the steering column. The brush and boom float on a double-roll ball-bearing assembly in a machined, grooved track. The brush is pivoted at the center so as to adhere to the car side in case the car body is slightly tilted.

In using this machine, the operator can vary brush pressure against the sides of cars without damaging any of the operating mechanism on the washer. The hydraulic system is designed to prevent excessive pressures building up when brush pressure becomes high and there is a tendency for the brush to slow down and stall.

The washer is heavily constructed throughout and designed for 24-hour service. Experience at Albuquerque indicates that it can be used to advantage for washing railroad cars at any location where a hard-top or concrete runway with a width of 8 ft. is available.

How the IC Uses "Long-Stick" Crawler Shovels

... in Widening Cuts

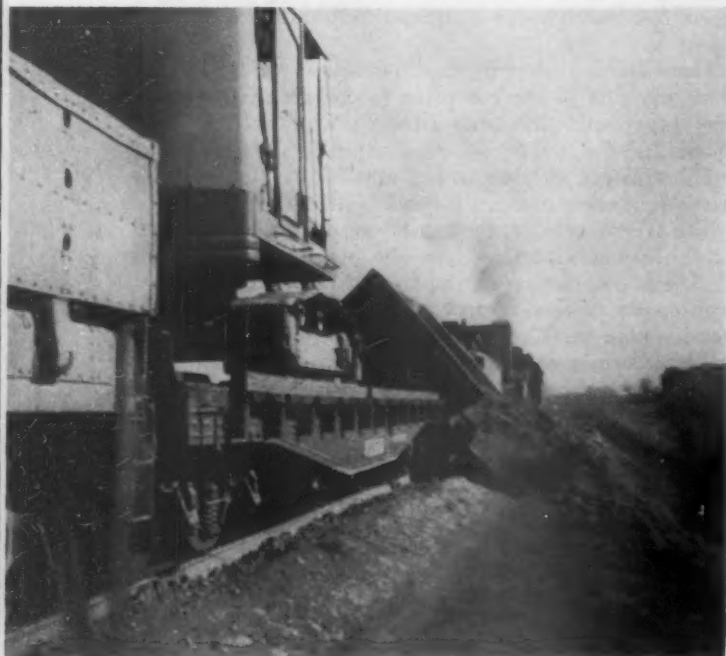
Grading units with extra-long dipper sticks and mounted on special flat cars work along with dump cars and Jordan spreaders



Each shovel loads two dump cars, one at each end of the flat car on which it is mounted.



The extra-long dipper sticks, plus the crowding action, allow a reach of 26-ft. from the center line of track.



The material is dumped along the shoulder of the track on a nearby fill which was in need of strengthening.



Uncoupled from the remainder of the train, the Jordan spreader, in one pass, spreads the dumped material.

The Illinois Central's program of cut ditching and widening entails the use of both on- and off-track equipment, depending upon the conditions encountered at the particular location. Where conditions do not permit the use of off-track machines, the road is using to good advantage a number of crawler shovels mounted "piggy-back" style atop specially fitted flat cars. The shovels are equipped with dipper sticks of unusual length, which, in conjunction with a crowding action, make it possible to obtain ditches of ample width and depth for good drainage.

Four Shovels in Use

The railroad owns four of the special crawler shovels and operates them in pairs in two separate ditching outfits, one on the road's Northern lines and the other on the Southern lines. Each ditching outfit, in addition to the two shovels, incorporates a Jordan spreader and four 20-cu. yd. air-actuated side-dump cars. The shovels are Koehring Model 304 diesel-powered units, equipped with $\frac{3}{4}$ -cu. yd. buckets and fitted with special 17-ft. dipper sticks in place of the standard 15-ft. sticks. To adapt them for this particular use, the flat cars on which the shovels are operated have steel guides fastened to their decks, which form channels in which ride the treads of the crawler units. With its dipper stick fully extended a shovel can easily deposit material to the opposite ends of the adjacent dump cars. When excavating they are able to reach approximately 26 ft. from the center of the track.

Each ditching outfit is incorporated in a work train consisting, from front to rear, of the locomotive and tender; the Jordan spreader; a dump car; a crawler

shovel; two dump cars; the second crawler shovel; a dump car; and the caboose. With this arrangement, each shovel is able to fill the two cars immediately adjacent to it by moving from one end of its flat car to the other. It has been found that the dump cars, which are all of the side-dump type and which are rated at 20 cu. yd. struck capacity, can be consistently loaded to about 25 cu. yd. by heaping. In this manner, the train is able to carry a total load of approximately 100 cu. yd. of excavated material on each trip.

A typical example of this type of operation was recently observed in a cut 31 ft. deep, known as Salt Creek cut, on the road's single-track main line southwest of Clinton, Ill. The mile-long cut, scene of several ballast washouts, was widened and a nearby fill strengthened with the excavated material, at a total cost of \$6,600. An officer of the road expressed his belief that considerable savings in maintenance expenditures will be realized now that drainage in the area has been improved.

The operation, which was begun on September 17, 1952, and completed on October 22, was carried out under traffic. Some 18,000 cu. yd. of material was excavated and placed at a cost, including work train and all other charges, of \$0.366 per cu. yd. of material handled. An average of 20 loads was handled each day at the rate of about four loads per hour in spite of the fact that traffic on the line averages eight trains per day. The entire program, carried out on an 8-hour-day, 5-day-a-week basis, allowed between 5 and 5½ hours for actual excavation work each day—the remainder of the day being consumed in clearing for trains and in traveling and unloading. The work was carried out under the direct supervision of F. T. Kraft, division engineer of the road's Springfield division at Clinton.



The finished cut. The improvement in drainage is expected to effect considerable maintenance savings.

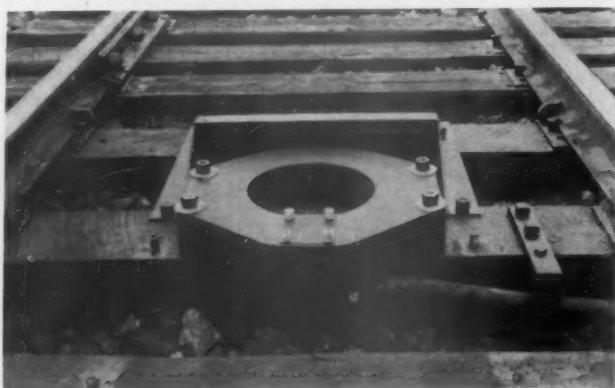


The fill, formerly a victim of erosion, as it looked after the dumped material had been spread.

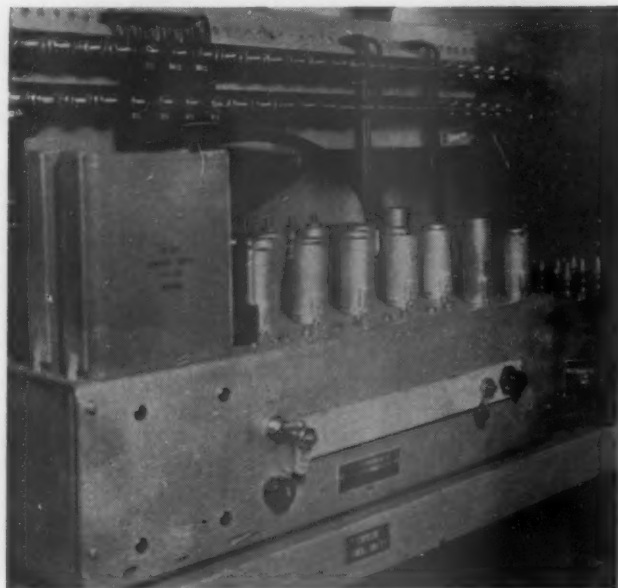
Electronic system, based on fail-safe principle, remotely controls manual-block signal, and positively identifies trains leaving manual block at an outlying unattended junction



The coil on the caboose passes directly over the track coil which is under the ramp.



Track coil with cover and ramp removed.



The electronic vacuum tube oscillator at Waterboro.

Erie First Railroad To Install Train Identification System

The Erie has established another "first" by installing a newly developed fail-safe electronic train-identification system. This device automatically reports to the dispatcher's office at Salamanca, N. Y., the passing of trains from single-track manual-block to double-track automatic territory at an unattended junction at Waterboro, N.Y., 22 miles away. This system also enables the dispatcher at Salamanca to control the manual-block signal at Waterboro, this operation as well as return of indications to his office being on the fail-safe principle. The basic equipment in this electronic system was manufactured by the General Railway Signal Company, and signal engineers of the Erie, in cooperation with the manufacturer, developed the application.

From Buffalo, N.Y., the B&SW division of the Erie extends southwest 58 miles to Waterboro, a junction with the east and west line of the Erie between New York and Chicago. The B&SW division trains use the double-track main line between Waterboro and Jamestown, N.Y., 10.8 miles. Waterboro is 22 miles west of Salamanca, where the main-line dispatcher is located.

Train movements on the B&SW division between Buffalo and Waterboro are now, and were previously, authorized by manual block, no track circuit controlled signaling being in service on this 58 miles. Previously the junction at Waterboro was included in a mechanical interlocking, operated by a leverman, who also operated the eastward manual block signal on the B&SW. When westbound trains from the B&SW division passed Waterboro and proceeded toward Jamestown, the leverman sent an "OS" to the dispatcher at Salamanca. As part of a progressive program, this mechanical interlocking at Waterboro has now been replaced by electric switch machines and color-light signals which are part of an extensive traffic control project controlled from a machine in the dispatcher's office at Salamanca.

Separate from this project, but placed in service at the same time, is the new system which (1) provides means whereby the dispatcher at Salamanca controls the eastbound manual-block signal for B&SW trains at Waterboro and (2) automatically sends to the dispatcher's office an individual identification of each westbound B&SW division train when its caboose passes Waterboro.

In this new installation the outgoing controls and indication codes, sent back and forth between Salamanca and Waterboro, are all handled by coded carrier which is superimposed on two existing line wires; therefore, no new line wires were required for the manual-block signal at Waterboro, or for the train identification system. This carrier equipment, made by G.R.S., is the same as is furnished for C.T.C. systems. The G.R.S. code transmitters used are the same as those ordinarily used for coded track circuits.

The eastward manual-block signal at Waterboro, which governs trains entering the B&SW division, is a three-position semaphore, a semaphore being used pur-

posely because it is distinctly different from the color-light interlocking home signals at this junction.

When the dispatcher's lever for control of the manual-block signal is in the normal position, 75 code is being sent continuously to Waterboro. This code (or absence of code) controls the manual-block signal to display the red (Stop) aspect. When this semaphore blade is in this position, inverse 75 code feeds back over the line to Salamanca, to cause a red indication lamp to be lighted over the normal position of the signal lever. When the dispatcher places the lever at the caution position, 120 code goes out to cause the signal to operate to the 45-deg. position and then 120 inverse code goes back to light a yellow lamp over the caution position of the lever. Similarly, 180 code is used to control and indicate the clear position of the signal. The lever and signal must be in the corresponding position to operate the proper indication lamp. Code, at the proper rate, must be transmitted continuously to control the signal; this fail-safe principle is equivalent to the closed-circuit principle.

Four Cabooses Equipped

No passenger trains are operated on the B&SW division. A local freight goes east one day, and west the next, except Sunday. One caboose is assigned regularly to the crew for this local train. The through freights are operated by crews which start at Buffalo and make a round trip turning at Meadville. Two crews are assigned to make such a run each day, and each of these crews has an assigned caboose. A fourth caboose—normally held at Buffalo—is available for an extra train.

Mounted on an iron frame under each of these four cabooses, as shown in the picture herewith, is a molded rubber "doughnut" about 18 in. in diameter. The doughnut lies in a horizontal plane with the lower side about 6½ in. above the level of the top of the rail. This doughnut includes a few turns of wire connected directly to a condenser in a waterproof compartment on the rubber casing. The coils on all the cabooses are the same, but the condensers are of different microfarad capacities, so that each coil is thereby tuned to a certain resonant frequency. The four different frequencies are in the range between 160 kc and 310 kc. A coil can easily be changed from one caboose to another if necessary. No battery or other form of electrical energy is required on the cabooses.

At Waterboro, another coil encased in rubber lies flat on the ties between the rails at a location 22 ft. west of the eastward manual-block signal. This coil is protected by sheet-metal ramps. A cover of wood, which is non-magnetic, extends from ramp to ramp over the doughnut. This track-mounted coil is connected by a coaxial cable to electronic equipment in a concrete instrument house near the track.

When a westbound B&SW division train approaches Waterboro, it occupies the approach track circuit AAT (see diagram) which causes the plate circuits in the vacuum tubes to be energized and also starts operation of the code transmitters. The special track circuit AT is only 300 ft. long. When the entire westbound train, including the last pair of wheels on the caboose, passes off track circuit AT, the pick-up of track relay AT starts a timing interval of six seconds, during which the system is capable of making a train identification. This time, and the location of the track coil, are such that a caboose traveling at a speed as low as 1 m.p.h. will pass over the coil within this six seconds, and be identified. Also the system operates so fast that it will identify a caboose

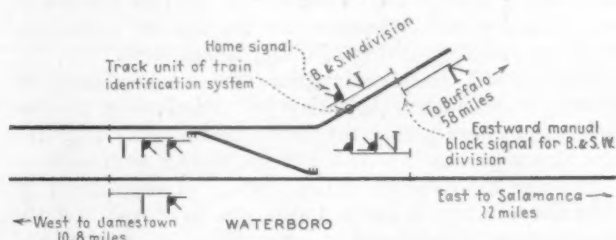


At Salamanca a train identification indicator lamp is lighted, a buzzer is sounded and a train chart pen is operated.

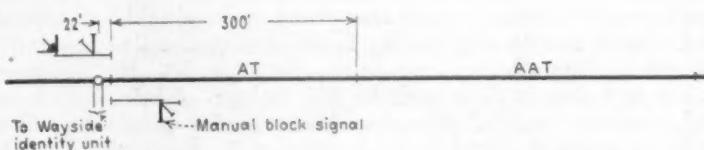
at any speed up to the maximum at which trains can be operated.

During the six seconds, the electronic vacuum tube oscillator in the instrument house feeds the track coil a sweep frequency. As a caboose coil passes over the track coil, the two coils are coupled, which produces an abrupt reduction in the output of the wayside oscillator. By means of suitable circuits, the oscillator reaction is employed to develop a series of pulses which are applied simultaneously to a group of relay control channels. Interconnections prevent false operations.

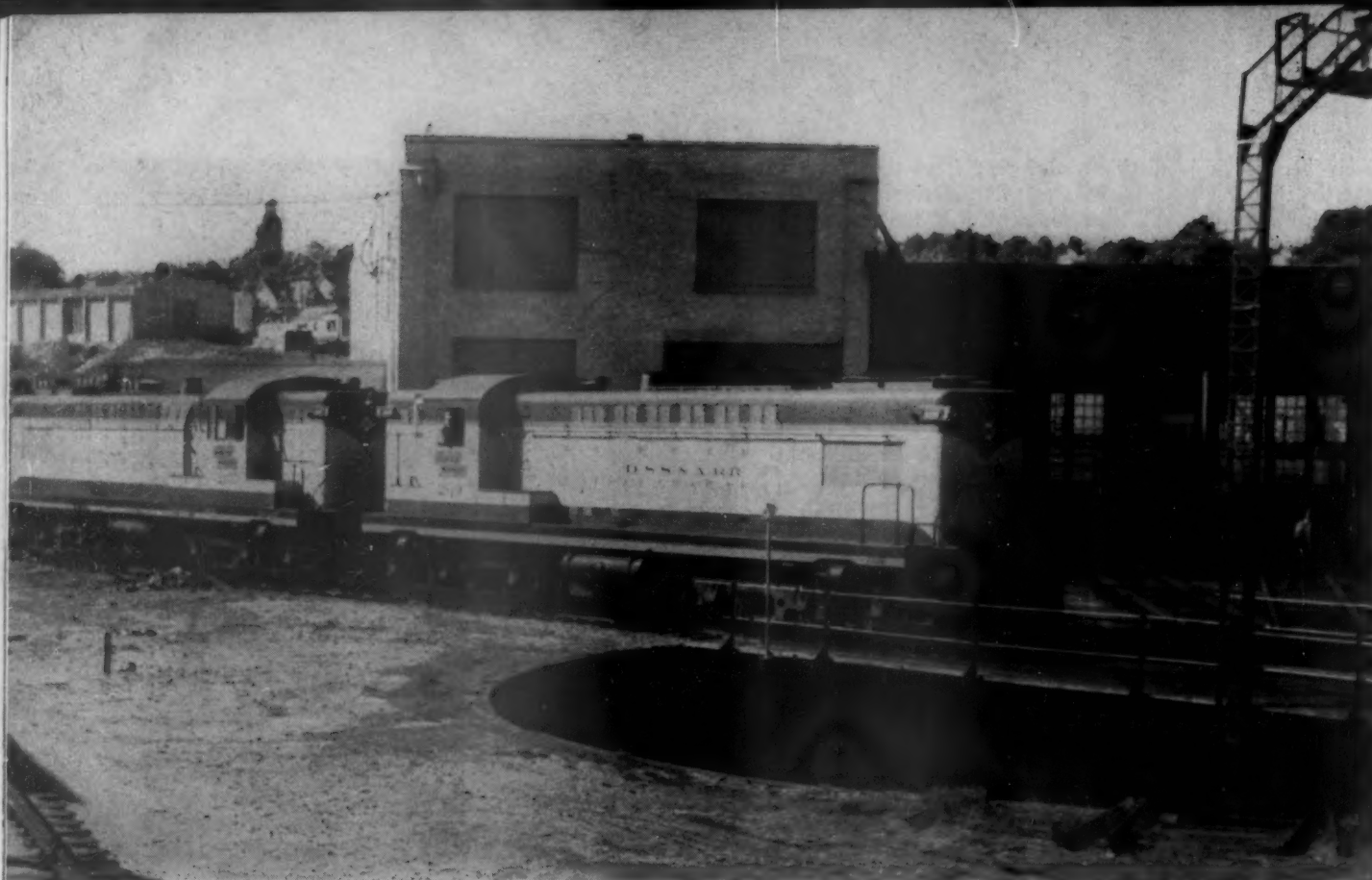
This installation of manual-block control and train identification was planned and installed by Erie signal department forces, under the direction of W. S. Storms, signal engineer, the principal items of equipment being furnished by the General Railway Signal Company.



The B&SW division joins the main line at Waterboro Junction.



Directional track circuits control the identification system.



Two Baldwin 1,600-hp. multiple-unit diesels arriving at Marquette for servicing.

DSS&A Adds Diesel Shop to Enginehouse

Built at Marquette, Mich., it centralizes repairs and servicing at one location to improve efficiency of locomotive maintenance

Another important step in the modernization of the Duluth, South Shore & Atlantic was accomplished with the completion of a new \$300,000 diesel shop at Marquette, Mich. This shop, together with the remodeling of the existing 15-stall enginehouse, will provide the necessary facilities and equipment for the efficient repairing, servicing and dispatching of diesel locomotives.

The DSS&A in planning the new shop utilized its existing enginehouse facilities by redesigning the interior and coordinating the redesigned facility with the new structure which is added to the former enginehouse.

Prior to the opening of the new diesel shop, the considerable distance between the locomotive shop and the enginehouse necessitated a separation of repair and servicing personnel and supervisors. In order to consolidate these forces, a new shop for heavy repairs was constructed at one end of the enginehouse, and the enginehouse was rearranged and modernized. The turntable was converted to a three-point electrically operated table, and modern fueling and sanding facilities were installed close to the enginehouse.

The new shop is 37 ft. wide by 125 ft. long, of brick and steel construction, with glass block window panels and an insulated metal roof. Ventilation is obtained through power-driven roof ventilators. The shop is served

by a radial track extending from the turntable, entering the shop through an electrically operated sectional overhead door. Inside the shop, the track extends over a servicing pit 4½ ft. deep, 74 ft. long, having recessed electric lights. This will accommodate the road's longest diesel locomotive. For changing trucks or raising locomotives on this track, four Whiting portable 35-ton electric jacks are used.

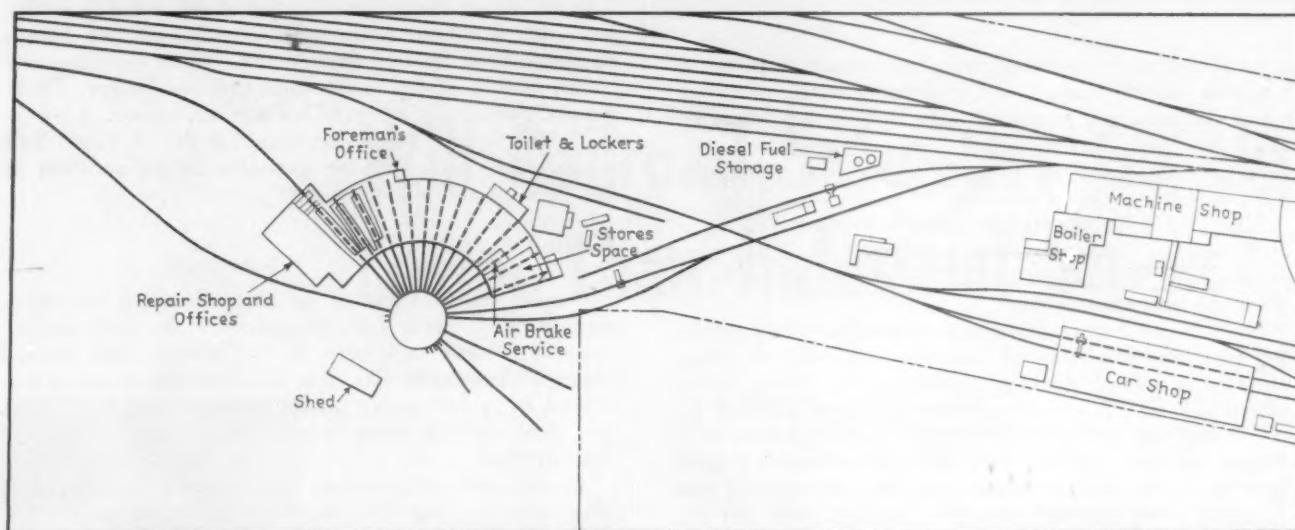
Two Tracks for Truck Repairs

At the rear end of the shop are two transverse tracks for truck repairs. These tracks extend into former stall No. 1 of the enginehouse, and the track nearest to the wall has a pit 48 ft. long to facilitate work on the under side of trucks. This area is served by both the overhead crane and a jib crane equipped with an electric hoist.

The shop is served by a Shepard-Niles 25-ton overhead crane, with 5-ton auxiliary hook, both hooks having a clear lift of approximately 21½ ft. The crane traverses the entire length of the shop and is operated from the floor by pendant control. With this equipment, all components of a diesel locomotive may be handled, such as diesel engines, generators, compressors, turbochargers, and trucks.



Diesel unit under the Shepard 25-ton overhead traveling crane at Marquette.



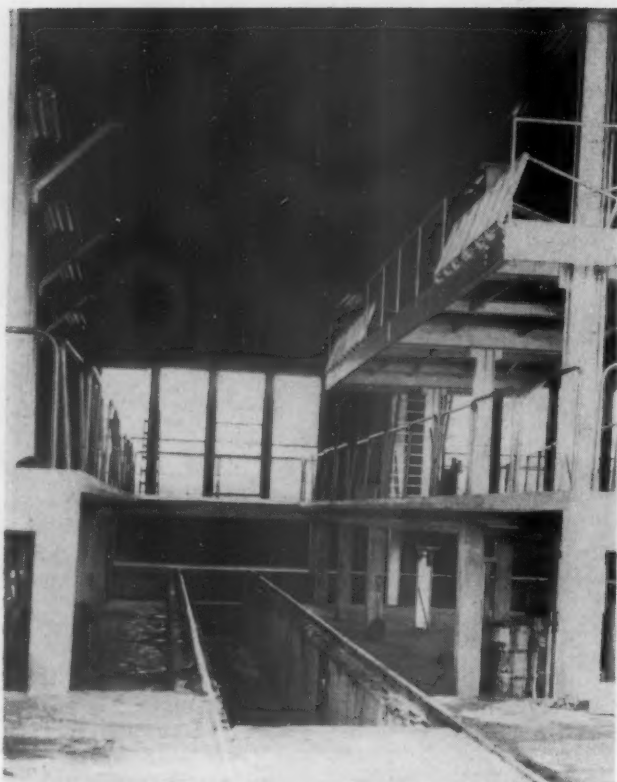
The new diesel repair shop of the DSS&A at Marquette, Mich., adjoins the enginehouse where diesel locomotives are serviced.

In this portion of the shop is located the load tester, made by the Westinghouse Electric Corporation. This unit is portable, consisting of a resistor bank and necessary switches and meters. By its use, checks are made of diesel-engine output and generator and control performance. It also provides for a run-in test. Engine output is readily calculated by converting the electric power reading of the resistor into horsepower and correcting for generator efficiency.

After a locomotive receives heavy repairs, the load tester is used to run the engine in before it is dispatched for service. This affords the shop forces an opportunity

to check all normal operations of the locomotive and obtain a record of the firing and compression pressures, as well as exhaust temperatures of each cylinder under full load. Observation and records can be taken of varying temperatures, and, if results are not within normal range, necessary parts can be removed for further inspection before damage results.

On the outside of the shop is an office and work room section, 21 ft. wide by 98 ft. long. This section provides office space for the master mechanic and his staff and also for a 21-ft. by 30-ft. electric repair shop and a 21-ft. by 18-ft. cleaning room. The electric shop is served by



One of the well-lighted, three-level inspection and repair stations at the Marquette diesel shop.

a hand-operated overhead traveling crane, having a three-ton electric hoist, and the cleaning room is served by a similar crane equipped with a three-ton capacity air hoist. The cleaning room has a steam-heated vat, with overhead hood for ventilation, and also a Magnus Aja-Dip parts cleaning machine.

Stall No. 1 in the enginehouse was converted to a machinery bay equipped with a boring mill, drill press, engine lathe, and power saw. This area is served by a jib crane and electric hoist.

Stalls 2 and 3 were remodeled to provide diesel servicing facilities consisting of inspection pits 4½ ft. deep, elevated deck-level working platforms 4 ft. 10 in. above top of rail, and top level servicing platforms 12 ft. 6 in. above top of rail. The deck level platforms are reinforced concrete, and the floor below them was depressed 2 ft. 6 in. to allow headroom on the lower level. The top level servicing platforms are structural steel, covered with expanded metal decking, and are equipped with hinged platforms which may be dropped out over the tops of locomotives. Each stall has a one-ton hoist operating on a monorail the full length of the stall.

Stalls 14 and 15 were remodeled for use as a storeroom by partitioning this area off from the rest of the enginehouse with asbestos board partitions, flooring over the pits, and replacing the track doors with permanent sections of wall. Approximately one-half of stall No. 13 was partitioned off and remodeled for use as an air-brake room, and the remainder of this stall is used for filter cleaning which is done with a Paxton-Mitchell machine.

An asbestos board ceiling was constructed over the entire enginehouse, stalls 20 to 15, for the purpose of fire protection, with 2 in. Fiberglas insulation above the asbestos board to improve the insulation. The original steam smoke jacks in stalls 2 to 6, in which section most of the diesel servicing work is carried out, were

LIGHT METER READINGS RECORDED IN MAY 1952

	Foot-candles
Diesel repair section—at floor level	10.12
Machine shop area —at floor level	15.22
Store room —at floor level	10.20
Between Stalls 2 and 3 diesel service area:	
Top deck	8.20
Intermediate deck	25.60
Lower deck	10.15

removed and replaced with power-driven roof ventilators to improve ventilation.

Throughout the enginehouse where pits were removed and also in the new repair section, heating is accomplished with overhead unit-type heaters, supplied with steam from the main power plant.

Fluorescent lighting is used in the offices, diesel repair shop, machine shop area and the three-level servicing platforms for Stalls 2 and 3. Incandescent lighting was installed in the storeroom, air-brake service and air-cleaning sections of the old enginehouse, Stalls 13, 14 and 15.

A 400-amp. 110/220-volt service was installed for the lighting and small tool requirements. If incandescent lighting had been used, a 600-amp. service would have been required.

It is estimated that the savings in electric energy using fluorescent lighting will be amortized in approximately three years, to say nothing of the improved illumination secured. The life of fluorescent tubes is from two to four times that of incandescent lamps, which gives an additional saving both in lamp replacement and in maintenance time costs.

In the diesel repair shop the overhead crane is equipped with a 40-hp. main hoist motor and one 15-hp. auxiliary hoist motor. One 6½-hp. motor operates the trolley and a 10-hp. motor operates the bridge. These motors operate on 220-volt 3-phase a.c. power.

Modern locker room facilities for the shopmen and enginehouse personnel are available in an addition at the back of the enginehouse.

Fueling Facilities

Outside the west end of the enginehouse, a new track was installed with fuel unloading racks sufficient to connect to four tank cars. A 260,000-gal. fuel storage plant, with concrete dike, was installed next to this track, served by a fuel pump house equipped with a 200-gal. per min. fueling pump used both for unloading and loading fuel.

On the east side, outside of the enginehouse, between the incoming and the outgoing tracks, is an electric-lighted fuel cabinet equipped with a remote push button control, at which point diesel locomotives may be fueled on either track. At this same location, new modern sand towers are being installed so that locomotives may be sanded while they are taking on fuel.

The old locomotive repair shop retains the machinery necessary for servicing diesel locomotive wheels and axles, and the remainder of the shop is used for car repairs. The boiler shop, which does most of the heavy steel work and fabrication for the car shop, and the blacksmith shop, which also does most of the blacksmith work for freight cars, are both convenient to the car shop and remain in operation at their present locations.

Except for wheel work, blacksmith work, and boiler work, all locomotive repair work and maintenance are now performed at the new shop and the remodeled enginehouse. The consolidation of shop and enginehouse forces permits greater efficiency and expedition in making repairs and dispatching locomotives.



If proposed legislative reforms better the political climate in which the railroads operate, even the securities of the handicapped roads with high terminal costs and a large proportion of passenger revenues to total would make a good investment for the future, says investment analyst.

Will Railroad Securities Go Up Faster Than Industrial Stocks?



... Pierre Bretey says that, with favorable legislation, they will — Failing its passage, they may only parallel general fluctuations

Should legislative proposals favorable to the railroads, now pending, be enacted, "railroad securities could well continue to outperform industrial securities for some time to come." Failing passage of such proposals, "railroad stocks may only parallel the major and minor fluctuations of the industrial averages." So advised Pierre

R. Bretey, railroad specialist for the New York investment firm of Baker, Weeks & Harden, and former president of the National Federation of Security Analysts, in an address at the annual meeting in Chicago on December 29, 1952, of the American Statistical Association.

If the political climate in which the railroads operate is to remain unchanged, the speaker would advise investors to "continue to favor equities of those railroads which have low wage and transportation ratios, and with high efficiency factors—in other words, those possessing fundamental advantages which have been reflected by better than average market performance in the past five years." Even in such an eventuality, there would not be excluded from consideration, "equities of roads, hitherto laggard, whose efficiency in reflection of cumulative benefits of large scale capital expenditures has been improving and bids fair to continue."

In contrast, if it appears that favorable legislation is to be a reality—and he sees signs pointing in that direction—Dr. Bretey believes that "those equities which hitherto have been backward, marketwise, primarily those of the large Eastern systems, would appear to possess especial speculative attractiveness. In addition to a more favorable proportionate division of rates, with Southern

HOW RAILROADS CONTROLLED ADVERSE TRENDS

Net Earnings		Indexes	
Class I Railroads (Millions)		Wage Rates (1940=100)	Freight Rates
1946	\$287.1	153	103
1947	478.9	160	114
1948	698.1	179	131
1949	438.2	195	142
1950	783.6	213	141
1951	692.9	236	141
1952 (est.)	775.0	242	149

and Southwestern carriers, cumulative benefits of large-scale capital expenditures should soon become more apparent. The almost spectacular rise in the earnings of many Eastern roads since September is indicative of the inherent leverage of this group. Barring major strikes, earnings for the Eastern trunk lines in 1953 should exceed those of any year since the termination of the war.

"Therefore, investors and speculators alike are urged to give serious consideration to further selective potentialities of capital gains in railroad securities arising from the improved fundamental position of the industry. Instead of concentrating, as has been so profitable in the more recent past, on securities of the primary beneficiaries of the marked industrial activity in recent years (namely, carriers located in the South, Southwest and Far West) it would appear logical for investors and speculators to turn their attention to the Eastern carriers as a source of substantially further profits."

Special Problems

As background for his division of roads for investment purposes, the speaker traced what he believes is the reason for the divergent behavior of the large Eastern roads, compared with what he terms "bridge lines" and roads in the spectacular "growth areas" of the South and West. "In the postwar period, inflationary influences—combined with what we may call a 'transportation revolution'—resulted in the failure of the important Eastern carriers (such as Pennsylvania, New York Central, Baltimore & Ohio, and Erie) to participate in the prosperity of railroads in other areas.

"These Eastern carriers, once enjoying a position of dominance because of controlled originating and terminating traffic, as well as profitable passenger and feeder (branch line) traffic, found themselves handicapped, postwar, as compared with the so-called 'bridge lines.' For the latter have no branch mileage of consequence (which now usually carries relatively little traffic and hence contributes little or no profit to the parent system); no heavy passenger business with unprofitable head-end volume; no heavy terminal or classification yard expenses; nor any commutation business or expensive lighterage services. In point of fact, bridge lines were among the first to take advantage of new technological improvements, and thus were able, in many instances, to double tonnages handled per train and to eliminate helper services.

"Additionally, these bridge lines have benefited by the Interstate Commerce Commission's postwar practice—whether by accident or design—to permit an increase in freight rates sufficient only to maintain solvency of the . . . carriers [which are] handicapped . . . by non-profitable passenger, branch line, lighterage and other miscellaneous services. Bridge lines have, therefore, in effect, become beneficiaries of postwar inflationary developments, and earnings of most bridge lines have reached the highest levels in their history—this at a time when low earnings have been the lot of the Eastern carriers.

"Failure of Eastern railroad stocks to keep pace with the bridge carriers marketwise no doubt has served to create a psychological handicap toward large scale institutional interest in rail shares, even now when real progress is being made toward correcting some of the industry's fundamental problems."

Future Bright

The special long-term factors which have affected so differently one group of roads, compared with the other, may be due for a change on the bright side. Dr. Bretey re-emphasized his observation that, in the recent past, the Dow-Jones average of railroad stock prices has risen more sharply than has the value of most industrial securities. Reduction of debt—and consequently fixed charges—plus a "marked increase in operating efficiency of most Class I roads" has made it possible for the industry as a whole to maintain "a satisfactory earning power in the face of rising wage and material costs."

The facts, according to the speaker, "may appear surprising to many of those who do not follow railroad operations closely." A comparison of net earnings with the trend in wage rates and in freight rates tells the story of increased railroad efficiency in finances and in operations, related to the drain of wages and the "stickiness" of freight rates (see accompanying table).

He mentioned "constructive factors," as follows:

"(1) Freight rates and costs have been for some months, and are now, in a more balanced relationship than for many years past. This balance, together with prospects for excellent business volume in 1953, spells a probable continuance of present high earnings for a reasonably prolonged period.

"(2) The political climate is becoming increasingly favorable to railroads. After a series of conferences, lasting over a period of three or more years, the Transportation Association of America, comprising every facet of the transportation industry, has placed its stamp of approval on a number of bills which will be placed before Congress. These are expected to come up for enactment in the forthcoming session, and if enacted, would prove most constructive indeed. . . .

"(3) Most Class I railroads have now installed budgetary controls. In contrast with the twenties and thirties, when such controls were relatively unknown, today almost all railroad officers have become conscious of the need of ironing out sharp fluctuations in earnings. Accordingly, the larger carriers are presently adjusting overall expenditures to weekly fluctuations in gross revenues.

"An excellent illustration is the experience of the Baltimore & Ohio. In the sharp business decline in 1938, that railroad suffered several monthly deficits of around \$2 million. Yet in 1952, when the protracted steel strikes had a temporary effect equal in extent to that of 1938, the B&O's earnings remained in the black. This carrier reported slightly over \$1 million in June and around \$650,000 in July. Overall results such as these, made possible through installation of budgetary systems, are not likely to remain altogether unnoticed by institutional investors.

"(4) Most railroad securities are selling at price-earnings ratios of three to seven times and offering yields up to 9 per cent. Even the better quality rails are selling less than eight times earnings and yield better than 6 per cent. Increasing institutional confidence could well result in a higher price-earnings multiple for investment rail equities, with secondary issues participating proportionately."



(Continued from page 18)

disputes" for two years. Dr. Peck was asked to prepare his report as an "exploration of the implications of various proposals to deal with this insistent problem."

"Speculation regarding the factors in the decline in the efficacy of the Railway Labor Act runs in terms of the relative decline in the status of the railroad industry, including the earning power of the roads and the earnings of the workers, government wage stabilization policies, the slowness in adjusting railroad rates to increases in costs, the complexity and importance of working rules in relation to long-time declining employment on the railroads, fierce interunion rivalry, and White House intervention," Dr. Peck said.

Certain spokesmen for the railroads have testified in favor of a senate bill which would have imposed a system of compulsory arbitration, he continued.

"Whether it is wiser to legislate against any possible contingency or handle genuine crises on an *ad hoc* basis is a decision of the greatest import," he said. "Government by law would seem to favor the first of these alternatives, but experience suggests that what is definitely known can be more certainly anticipated and discounted by one or both parties. . ."

Railroads Are Ready For Inaugural Traffic

Arrangements for parking several hundred railroad sleeping cars at various yards in Washington to serve as living quarters for their occupants during the inauguration of President-Elect Eisenhower were described in a January 6 statement from William T. Faricy, president of the Association of American Railroads and chairman of the railroad subcommittee for the inaugural.

In a January 14 statement, Mr. Faricy predicted that the flow of passengers through Washington's Union station during the inauguration "will equal or exceed that of the peak of World War II traffic." He estimated that more than 150,000 persons a day will move through the station on January 19 and 20. Normally, about 60,000 to 80,000 persons pass through the station daily.

In order to handle the increased traffic, officers of the station and rail-

roads using it "having been working for weeks on advance arrangements," Mr. Faricy also said. Among such arrangements is a plan whereby some through trains will load and unload passengers at Alexandria, Va. A special shuttle bus service will be operated to and from Union Station and Alexandria.

Mr. Faricy's January 6 statement estimated that 600 extra sleeping cars would be required to bring organized groups and individuals to the inauguration. The A.A.R. president added that commitments for parking up to 480 of those cars in Washington yards for one or more nights had been made. "These cars could provide living quarters and services for an estimated 9,600 persons," Mr. Faricy also said.

Supreme Court Upholds I.C.C. Truck-Lease Rules

The United States Supreme Court has upheld the Interstate Commerce Commission's order prescribing rules for the leasing of vehicles by common and contract motor carriers.

As the court noted, the American Trucking Associations and others appealing the commission order focused their "principal attack on those provisions of the rules which will have the effect of abolishing trip-leasing and prohibiting rental payments of the revenue-splitting type."

The commission's report prescribing the rules was dated May 8, 1951, but the effective date of the order has been postponed from time to time while the court proceedings ran their course. Six rules were prescribed. The one which will prohibit trip-leasing stipulates that leases must be in writing and for a term of not less than 30 days when the leased vehicles are to be operated for the authorized carrier by the owners or their employees. Another of the rules sets out exemption provisions which make the rules inapplicable to "equipment utilized wholly or in part in transportation of railway express traffic, or in substituted motor-for-rail transportation of railroad freight moving between points that are railroad stations on railroad billing." (*Railway Age*, May 28, 1951, Page 61.)

The Supreme Court passed upon two appeals from the commission order. The one in which A.T.A. was among the appellants came up from the federal district court for the Northern District of Alabama. The other, *Eastern Motor Express v. U.S. and I.C.C.*, came up from the federal district court from the Southern District of Indiana.

The Supreme Court's majority opinion, announced by Justice Reed, was accompanied by Justice Black's dissenting expression to which Justice Douglas subscribed. One contention of the dissenters was that the exemption for railroad trucking amounted to the granting of "special advantages in violation of the express policy" of the

Traffic Load Made 1952's Safety Record "Remarkable"

"The gain in railroad safety over the years is even more remarkable when considered in relation to the amount of traffic handled," William T. Faricy, president of the Association of American Railroads, said in commenting on the "all-time safety record" set by the railroads last year.

The 1952 record was noted in *Railway Age* January 12, page 11. As Mr. Faricy said, preliminary figures indicate that last year's passenger-fatality rate will be about 0.045 per 100 million passenger-miles.

The A.A.R. president went on to note that the safest previous year of the 65 during which accident statistics have been kept was 1949, when the passenger-fatality rate was 0.08 per 100 million passenger-miles. Considering accidents of all kinds, "it is a certainty that 1952 was the railroads' safest overall year," Mr. Faricy also said. He cited figures for 1952's first 11 months which showed that fatalities in railroad accidents of all kinds (including those involving passengers, employees, persons killed at grade crossings and trespassers) fell about 10 per cent below those of 1952 and non-fatal accidents declined about 13 per cent.

Mr. Faricy's assertion that the traffic load has made the gain in safety "remarkable" was followed by this further comment: "As compared with 1939, the safest year of the prewar period, railroads handled in 1952 nearly twice as much freight traffic and half again as much passenger travel, but had approximately 30 per cent fewer fatalities in accidents of all sorts, so that the fatality rate in relation to the volume of business handled in 1952 was much less than half that of the best pre-war year."

Interstate Commerce Act. On that subject, the majority opinion had this to say:

"As the commission found, the leasing practices in the railroad field are undertaken through long-term contracts with certain established lessors, and the equipment inspected and controlled by the railroads, and identified with its name. In such a context, the exemption is not unreasonable; certainly it is not required that the commission extend its supervisory activities under the rules into fields where the evidence before it indicates no need, merely to satisfy some standard of paper equality."

California Commission Denies 9% Rate Hike

Stating that railroads involved had "failed to sustain the burden of proof . . . that the proposed rate increase is justified," the Public Utilities Com-



TO KEEP ABREAST of the rapid development which is taking place on Canada's Pacific coast and on Vancouver Island, the Canadian Pacific, in the past few years has built and placed in service three new steamships — the "Princess Marguerite," the "Princess Patricia" and the "Princess of Nanaimo." The latter, largest ship in the fleet, can carry 130 automobiles in addition to passengers. Plans are now being prepared for construction of another ship to handle railroad cars, or passengers, automobiles and trucks, between Vancouver and Nanaimo.

mission of California has denied their request for a 9 per cent increase in intrastate freight rates.

A joint application involving 36 rail lines and a number of connecting highway and water carriers had sought the increase to bring rates in line with the full 15 per cent authorized by the Interstate Commerce Commission in Ex Parte 175 (*Railway Age*, April 21, page 71). A 6 per cent increase had been granted by the California Commission in December 1951.

D.T.A. Study Surveys Transport of Vegetables

The Defense Transport Administration has issued a study of "Transportation of Fresh Vegetables, 1952."

It is intended to be "a yardstick to measure the adequacy and ability of the nation's domestic carriers to transport fresh vegetables under either mobilization, attack, or post-attack conditions." It is a 43-page pamphlet containing several charts and tables analyzing the transportation problems directly or indirectly involved.

Among the study's conclusions is one stating that the railroad and trucking industries have both "proved their ability to maintain operations under emergency conditions." The study's review of carrier performance under disaster conditions indicated that "transportation has been ready and able to move at least minimum requirements as rapidly as terminals and market facilities are restored in the disaster area."

Another conclusion holds that gov-

ernment should be in the transport picture in times of emergency. "Some government agency such as D.T.A.," it says, "must, in the event of an emergency such as another war, have the responsibility of coordinating and directing the domestic movement of traffic in complete cooperation with carriers in private industry, and of allocating the use of domestic transportation facilities, if conditions warrant. In emergencies of lesser kind, such as the present emergency, the guiding hand of government is sufficient."

Copies of the study may be obtained from the D.T.A. Information Office, Room 4217, I.C.C. Building, Washington, 25, D.C.

Perishables Conference Planned for February 5-7

A conference on transportation of perishables will be held on the Davis campus of the University of California at Berkeley February 5-7. Details of the program may be obtained by writing the Department of Conferences, University Extension, Berkeley 4.

Dr. Lomonosoff Dies

Dr. George V. Lomonosoff died on November 19 in Montreal. He had been residing in Canada since 1948.

Dr. Lomonosoff, a graduate of the St. Petersburg Institute of Transport in 1898, served as assistant chief mechanical engineer of the Ekaterina Railway; as president of the Locomotive Experiment Bureau; and as chief

mechanical engineer of the Tashkent Railway, and, later, of the Nicolas Railway. In 1912 he was appointed assistant director general of Russian Railways. In 1913 he was appointed a member of the Supreme Engineering Council and in 1915 became also under secretary of transport. He was president of the Railway Mission to the U.S.A. in 1917 and returned to Russia as under secretary of transport in 1919. From 1920 to 1923 he was high commissioner for railway orders.

Dr. Lomonosoff developed the method of testing steam locomotives now used by the U.S.S.R. and, with slight modifications, in other European countries. In 1920 his proposal to order a number of diesel locomotives was turned down by Trotsky, but in October 1922 the Soviet Cabinet authorized construction of three. The first diesel locomotive designed by Dr. Lomonosoff was built in 1924 in Dusseldorf, Germany. In 1925 Dr. Lomonosoff, went to England to place an order for the building of a 1,200-b.hp. Schelest diesel, but the locomotive was shipped to Russia unfinished because, it is said, the Russian government expressed doubts as to its usefulness.

A few years later Dr. Lomonosoff took up residence in England, where he made many contributions to the Proceedings of the Institution of Mechanical Engineers, of which he had become a member in 1931. He received the degree of Dr.Ing. at the Technische Hochschule, Berlin, prior to settling in England.

Lang Predicts 29% Gain in Transport Load by 1961

Expanding production of American industry will call upon the transportation industry to handle a 29 per cent greater load in 1961 than it is handling today, Chester H. Lang, vice-president of the General Electric Company, predicted in a January 13 talk before the Traffic Club of Philadelphia.

"We are in for the greatest period of expansion and industrial growth in our nation's history," Mr. Lang said. "Barring all-out war, this eruption of business growth just cannot miss. Sure, we'll have a dip or two over the long haul, but the dips won't dig deep, and they won't last long. And after each dip, we'll move on again from an ever-higher level on the long, long climb to unmatched heights of prosperity and business well-being."

If private enterprise fails to meet the challenge of being prepared for future growth, there will be increased pressures for socialistic legislation and "louder and louder howls for government intervention in our economy," he warned.

Mr. Lang cited the example set by the nation's carriers in spending more than \$2¼ billion in the last two years for expanded and improved equipment. "In the final analysis," he said, "our entire economy stands or falls on abil-

Briefly . . .

. . . The New York Central inaugurated on January 1 new one-day, bargain-rate round-trip tickets from suburban counties in New York and New Jersey to New York City. The tickets, known as "Manhattan Trip Tickets," are sold at 25 per cent under former cost. "We are placing these tickets on sale for an extensive trial period in the hope that the expected volume of business will fill our trains which are providing off-peak service," F. H. Baird, assistant vice-president of passenger traffic, said.

. . . The Southern Pacific's "Shasta Daylights"—coach streamliners operating between San Francisco and Portland—carried their one millionth passenger on December 19. The honor went to 11-year-old Alice Smith of Oakland, Cal., who was appropriately feted by the crew and passengers during her trip. Since the all-coach trains went into service in July 1949 they have had an average daily total loading of approximately 800 passengers.

. . . Through sleeping car service between St. Louis and Mexico City has been re-established by the Missouri Pacific and the National of Mexico. A daily, through car is being handled between St. Louis and the border on "The Texan," while NdeM trains 1 and 2 handle the car between there and Mexico City. This service is in addition to that provided by the MP's "Texas Eagle" and the NdeM's "Aztec Eagle," which involves a cross-platform transfer at San Antonio, Tex.

ity to move our national product—move it fast, move it safely, move it economically. I have no doubt that the challenge will be met—and met magnificently—as the transportation industry has met the challenges of the past."

607 Salaries of \$20,000 Or More Paid in 1951

There were 607 railroad officers receiving compensation during 1951 at the annual rate of \$20,000 or more, according to a compilation issued by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission.

The compilation, Statement No. 5254 of the bureau, shows that average compensation for the group amounted to \$33,255. That compared with an average of \$32,336 paid in 1950, when 567 officers were in the \$20,000-and-over group.

The figures cover both Class I line-haul roads and Class I switching and terminal companies. The total amounts paid to the \$20,000-and-over groups in

1951 and 1950 were \$20,185,917 and \$18,334,273, respectively.

Twenty-five officers in the 1951 group received salaries of \$70,000 or more, while 237 were in the \$20,000-to-\$24,999 salary class. These latter received 39.37 per cent of the total amount paid to the \$20,000-and-over group in 1950.

In its comment on the figures, the bureau noted that the 607 officers in the 1951 group represented an increase of 98.37 per cent above the 306 in that group in 1943. The average compensation of members of the group was \$30,463 in 1943, \$2,792 less than the 1951 average.

Requirements for the 1951 railroad reports, from which the bureau obtained its figures, also called for information from each road as to the five persons receiving the largest amounts of compensation during the year, regardless of the salary basis. This listing, together with those persons in the \$20,000-and-over group, made a total of 946 officers with respect to whose salaries returns were received.

The 946 received aggregate compensation in 1951 of \$23,994,704, or an average of \$25,364. This average in 1950 had been \$24,288, and there were then 904 officers in the group. As the bureau noted, some or all of the top five officers of some roads did not receive as much as \$20,000 in 1951.

ORGANIZATIONS

Track Supply, B.&B. Groups Plan Convention Exhibits

Preliminary steps have been taken toward an extensive exhibition of manufacturers' products at the Coliseum, Chicago, September 14-17, during the concurrent annual conventions of the Roadmasters and Maintenance of Way Association and the American Railway Bridge and Building Association. The exhibit will be sponsored jointly by the Track Supply Association and the Bridge and Building Supply Association.

Applications for space are being sent to manufacturers this month, setting March 1 as the date for first allocation of space. Interested manufacturers should address requests for information to Lewis Thomas, director of exhibits, Room 705, 59 E. Van Buren street, Chicago 5.

John P. Kiley, president of the Chicago, Milwaukee, St. Paul & Pacific, will be guest speaker at the biennial dinner-dance of the **Railway Business Woman's Association of Chicago**, on January 24, at 6:30 p.m. A bus tour of Chicago, prior to the dinner, has been arranged for out-of-town guests from other chapters of the **National Association of Railway Business Women**.

The **Transportation Club of the Rochester Chamber of Commerce** will hold its 29th annual dinner on February 3, at 6:30 p.m., in the Chamber of Commerce banquet hall, Rochester, N.Y. Guest speaker will be "Colonel" Jack Major of Paducah, Ky.; the toastmaster will be Louis A. Langie, president, Langie Fuel Service, Inc.

EQUIPMENT AND SUPPLIES

FREIGHT CARS

7,845 Freight Cars Delivered in December

New freight cars delivered in December 1952 for domestic use totaled 7,845, compared with 5,929 in November 1952 and 8,458 in December 1951, the American Railway Car Institute and the Association of American Railroads have announced jointly. Deliveries for the full year 1952 aggregated 77,768 (22 units less than the tentative total of 77,790 reported on page 221 of the January 12 *Railway Age*).

New freight cars ordered in December amounted to 1,159, raising the year's total to 37,261, the announcement said. (Cancellation of orders for 650 cars brought 1952's final total down from the 37,911 units reported on pages 220 and 221 of last week's issue.) The backlog of cars on order on January 1, 1953, was 80,296, the announcement added, compared with 87,657 on December 1, 1952, and 123,947 on January 1, 1952.

A breakdown by types of cars ordered and delivered in December and of cars on order on January 1 appears in the accompanying table.

Type	Ordered Dec. '52	Delivered Dec. '52	On Order & Undelivered Jan. 1, '53
Box—Plain	0	1,747	20,650
Box—Auto	0	249	500
Flat	200	485	3,480
Gondola	200	1,778	17,597
Hopper	0	1,591	21,714
Covered Hopper	100	669	6,044
Refrigerator	132	822	3,036
Tank	477	458	5,509
Caboose	50	7	179
Other	0	39	1,587
Totals	1,159	7,845	80,296
Carbuilders	777	5,769	47,237
Railroad Shops	382	2,076	33,059

The **Central of Georgia** has ordered 50 70-ton covered hopper cars from the Pullman-Standard Car Manufacturing Company at an estimated cost of \$362,769. Delivery is scheduled for late next April.

The **Denver & Rio Grande Western** has ordered 200 70-ton drop-bottom gondola cars from the General American Transportation Corporation for delivery during the third quarter of

1953. The cars are part of 1,700 such units mentioned in the road's recent statement about 1953 betterment plans (*Railway Age*, January 5, page 15).

The **Great Northern** has ordered 200 50-ton flat cars from the Pacific Car & Foundry Co. at an estimated cost of \$1,250,000. Delivery is expected in the Fourth Quarter of 1953.

The **Gulf, Mobile & Ohio** has ordered 50 70-ton covered hopper cars from the Pullman-Standard Car Manufacturing Company for delivery during the third quarter of 1953.

LOCOMOTIVES

The **Denver & Rio Grande Western** has ordered five six-motor 1,500-hp. diesel road-switching units from the Electro-Motive Division of General Motors Corporation for delivery next April and May. The units are those mentioned in the road's recent statement about betterment plans for 1953 (*Railway Age*, January 5, page 15).

SIGNALING

The **Chicago Transit Authority** has ordered equipment from the Union Switch & Signal Division of the Westinghouse Air Brake Company for an automatic interlocking at Sangamon street, and automatic block signals at Racine and Sacramento avenues, in connection with temporary surface operations on Van Buren street. The automatic interlocking is for protection of a temporary grade crossing that will be in service for about two years, and the automatic block signals are to provide speed control on the inclines leading to the ground during the time that trains are operated on the street level. Installation will be handled by the Transit Authority.

The **Louisville & Nashville** has ordered equipment from the General Railway Signal Company for a coded interlocking at Radnor yard, Nashville, Tenn.

The **Texas & Pacific** has ordered equipment from the General Railway Signal Company for installation of a coded interlocking at Luling, La.

The **Wabash** has ordered equipment from the Union Switch & Signal Division of the Westinghouse Air Brake Company for a new interlocking in connection with Wabash-Illinois Central crossing and expanded yard facilities at East Decatur, Ill. Installation will be handled by railroad forces.

SPECIAL

The **Erie** has ordered 21 diesel-powered locomotive cranes at a cost exceeding \$1,000,000. Orders were placed as follows: Orton Crane & Shovel Co., 10 cranes; Industrial Brownhoist Cor-

poration, two cranes; and American Hoist & Derrick Co., nine cranes. Delivery is expected within the next eight months. "Dieselized locomotive cranes have become necessary on the Erie because facilities for furnishing fuel and water for coal-burning equipment are no longer available," Milton G. McInnes, vice-president—operations, said. He estimated that the new diesel cranes will replace 30 of the steam-powered type.

SUPPLY TRADE

American Steel Foundries Forms Transport Division

A new Transportation Equipment division has been formed by American Steel Foundries for the purpose of "concentrating sales, manufacturing and development efforts for better service to railroad customers." C. L. Heater, vice-president heads the new division.



C. L. Heater

All the division's sales, including those to both railroad and private car companies, will be directed by Vice-president C. E. Grigsby. Engineering, research and development work will be under supervision of R. B. Cotrell, chief mechanical engineer. G. H. Snyder, also a vice-president of A.S.F., will assist Mr. Heater in a staff capacity.

Ralston Steel Car Quits Car Building Field

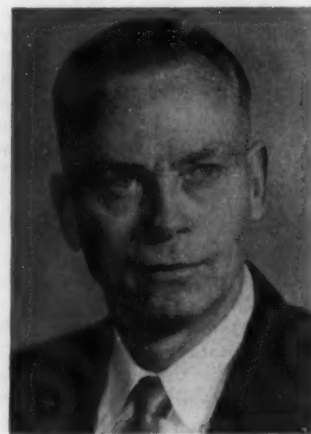
The Ralston Steel Car Company, Columbus, Ohio, has withdrawn entirely from the freight car building field, after having served the railway industry in that capacity since 1905.

President Frank M. Cowgill told *Railway Age* that the board of directors had not reached any decision as to what field the company might enter. He said the company's charter was broad enough to permit entering many

aspects of the manufacturing field within the state of Ohio.

Some time ago, the company discontinued manufacture of new cars, but part of the plant remained active in manufacture of parts and in making freight car repairs. "Our board has now reached the conclusion that this activity no longer offers adequate profit and we are discontinuing our activities in this field entirely," he said. One building already has been leased to a glass manufacturing firm for storage purposes.

Warren A. Thomas, sales manager of the La Grange factory branch of the Electro-Motive Division of General Motors Corporation, has been named manager of the rebuild



Warren A. Thomas

section of the sales department. Mr. Thomas joined Electro-Motive in 1936 as an assembler in the locomotive division, and later served as foreman and service technician assigned to the United States Navy. Following World



Robert T. Samuel has been appointed manager of the transportation department of the sales organization of the International Business Machines Corporation, with headquarters at New York. He succeeds Paul A. Shackelford, who has retired, but who will continue to serve in an advisory capacity.

War II, he was manager of the diesel locomotive training center; then manager of the statistics and market analysis section of the sales department.

C. W. Kalchthaler has been appointed assistant to general sales manager of the **Hyatt Bearings Division of General Motors Corporation**, with headquarters at Harrison, N.J. Mr. Kalchthaler has been assistant manager of the Hyatt Motor division sales office in Detroit.

The **Pennsylvania Flexible Metallic Tubing Company** has appointed **Murray-Baker-Frederic, Inc.**, as its distributor in the New Orleans territory.

Lyde E. Howard has been appointed manager—engineering of the construction materials wire and cable department of the **General Electric Company**, at Bridgeport, Conn. He formerly was manager of engineering and manufacturing for the wire and cable department at Schenectady, N.Y.

Francis L. Schmale, formerly assistant sales manager for the **Double Seal Ring Company**, has been promoted to general sales manager at Fort Worth, Tex.

The **Gustin-Bacon Manufacturing Company** has appointed **George R. McMullen** as manager of its newly established Kansas City sales division, with offices in the Centennial building. The new division will cover a four-state area and concentrate on sales of the company's glass fiber insulation and industrial products. **W. M. Doughman** and **Grant I. Wyrick** have been assigned to the division as sales and service engineers.

The **Libbey-Owens-Ford Glass Company** has appointed **Silvercote Products, Inc.**, 161 East Erie street, Chicago, as distributor for sale of fabricated super-fine fiber-glass materials to the railroad industry.

J. R. Alexander has been appointed general sales manager of the **Quaker Rubber Corporation**, division of the **H. K. Porter Company**. Mr. Alexander joined Quaker in 1944 as a sales representative and later worked successively as city sales manager and district sales manager until his present promotion.

F. H. Webster, formerly assistant manager of the Western sales division of the **Hyatt Bearings Division of General Motors Corporation**, has been appointed manager of the sales division, with headquarters at Chicago. He succeeds **C. L. Newby**, who has retired after 34 years of service.

The **Benjamin-Foster Company**, Philadelphia, has been appointed a distributor for the **Gustin-Bacon Manufacturing Company**. The Philadelphia firm will handle Gustin-

Bacon's Ultralite and Ultrafine glass-fiber insulations in its trade territory. The **Achenbach & Butler Co.**, which also has been handling Gustin-Bacon products in that area, will continue to do contract work with the two types of insulation.

Leo Flinn, sales and service representative of the **Dearborn Chemical Company**, Chicago, has been appointed to the newly created position of supervisor of No-Ox-Id sales and service, with the same headquarters.

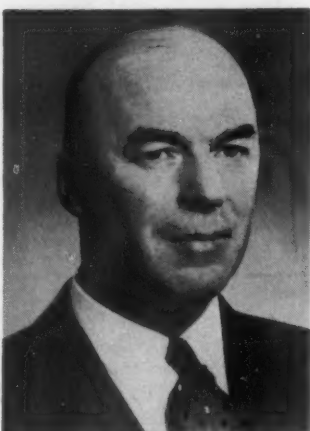
The **American Locomotive Company** has appointed **Hunter Michaels** as vice-president—operations, with direct responsibility for all plant operations; **D. W. Cameron** as vice-president—manufacturing, in charge of manufacturing operations at all plants;



Hunter Michaels

and **Manuel Alonso** as vice-president—foreign sales.

Mr. Michaels, in 1923, joined the **Railway Steel Spring Company**, which was purchased by American Locomotive in 1926. In 1935 he was appointed district sales manager at Cleveland. He has been vice-president in charge



D. W. Cameron

of the **Railway Steel Spring** division since 1950 and director of the division since 1944.

Mr. Cameron started his career in

the locomotive industry with **Montreal Locomotive Works** in 1917. He joined Alco's Schenectady plant in 1925, being appointed general superintendent in 1947 and assistant manager in 1951.

Mr. Alonso has been with Alco's



Manuel Alonso

foreign sales department since 1928. He has served as foreign sales representative in South America, the Middle East, Europe, South Africa and Portuguese East Africa, and was appointed manager of foreign sales in 1950.

The **Vapor Heating Corporation** has appointed **William C. Keeran** as executive engineer. In his new capacity, Mr. Keeran will supervise all phases of engineering, research and product design. He also will continue as vice-president of the **Roth Manu-**



William C. Keeran

facturing Company, a Vapor subsidiary. Mr. Keeran received his master's degree in engineering from Northwestern University, and, after spending several years in engineering and production work with other companies, joined Vapor in 1941.

Robert F. Carr, Jr., has been elected vice-president of the **Dearborn Chemical Company**. Mr. Carr will make his headquarters in Chicago after February 1 and will work with present

heads of the firm's sales departments to promote general overall sales of all Dearborn products.

Ralph E. Spears has been named district engineer of the **Portland Cement Association**, at Salt Lake City.

S. E. Biggs has been elected vice-president in charge of operations of the **Youngstown Steel Car Corporation**. Mr. Biggs had been vice-president in charge of manufacturing of Trailmobile, Inc., a subsidiary of Pullman, Inc.

Thomas S. Walsh has been appointed factory representative of the **Rust-Oleum Corporation** for the metropolitan New York and northern New Jersey trade area.

The **Athey Products Corporation** has appointed **W. L. Davies**, former assistant to director of the National Production Authority, as its eastern district representative. Mr. Davies' territory will include Washington, D.C., Maryland and eastern Pennsylvania.

Richard M. Boyd has been appointed general traffic manager for the **Pittsburgh Plate Glass Company**. Mr. Boyd has been associated with the firm since 1949, serving as traffic manager for the glass division.

The **Alloy Rods Company** has appointed the **Mississippi Supply Company**, Chicago, as authorized distributor for its complete welding rod line to a group of railroads in the Chicago, St. Paul, Minneapolis and St. Louis areas.

The **Radio Apparatus Corporation** has transferred its sales offices for Monitoradio, the firm's line of receivers and transmitters for mobile or stationary communications systems, to 1604 West 92nd street, Chicago 40. Previously all sales had been handled through factory offices at Indianapolis. **Verne Roberts** has been appointed director of sales and **Paul Redhead**, sales manager, for Monitoradio.

William A. Baldwin, previously in charge of railroad sales for the Reflective Products division of the Minnesota Mining & Manufacturing Co., has been appointed sales representative for the Steel Floor division of the **Great Lakes Steel Corporation**, with headquarters at 20 North Wacker drive, Chicago. He will be associated with **Edward W. Fitzgerald** in sales and servicing of nailable steel flooring to railroads with headquarters in the Chicago and Minneapolis-St. Paul areas.

OBITUARY

Basil S. Cain, assistant manager of locomotive engineering at the locomotive and car equipment department of the General Electric Company at Erie, Pa., died of a heart attack on January 5. Mr. Cain was born in Man-



J. M. P. McCraven, manager of the railway sales department of the Texas Company, died on December 30 at the United Hospital, Port Chester, N. Y., after a brief illness.

chester, England, October 8, 1899. He began his engineering career as a student apprentice in 1921 with the British Thomson-Houston Company, an Eng-



Basil S. Cain

lish affiliate of General Electric. He came to the United States in 1923 with the company's International General Electric division, and was appointed assistant manager of locomotive engineering in 1936.

FINANCIAL

Atlanta & Saint Andrews Bay.—Stock Dividend.—Division 4 of the I.C.C. has authorized this road to issue an additional 24,000 shares of \$100 par stock, to be distributed as a dividend to present stockholders. Four shares of the new stock will go to each share of existing stock. The road said its stockholders have foregone regular dividends so that earnings could be plowed back into the property, and this increase in capitalization

from \$600,000 to \$3,000,000 will more clearly reflect the stockholders' true investment. The road has no funded debt.

Chicago, Aurora & Elgin.—Stock Option Plan Denied.—The Illinois Commerce Commission has denied permission for this road to sell a total of 28,000 shares of common stock to four of its executive officers who are also directors of the company. The commission, in denying the limited stock option, said there was no evidence of specific or urgent need by the road for the additional capital, and that the issue was represented principally as a means of incentive for the officers concerned over and above their regular compensation.

Missouri Pacific.—Reorganization.—The I.C.C. has cancelled its scheduled January 27 hearing in this case. Instead, a "prehearing conference" will be held on that date to discuss, among other things, the date on which a formal hearing can be held. Various parties in the case requested this postponement. Commissioner Mitchell will preside at the "prehearing conference."

Long Island.—Reorganization.—The Railway Labor Executives' Association and the Brotherhood of Locomotive Firemen & Enginemen have been authorized by the I.C.C. to intervene in this proceeding. The association and the brotherhood told the commission their interest is "clearly involved" in this proceeding. Such interest, they said, may be adversely affected "to a substantial degree" in terms of job loss and employment displacement as a result of changes of management, ownership or operation of the LI.

New York Central. — Dividend Policy.—Until improved earnings are realized and further progress is made toward complete dieselization, the New York Central's dividend policy "must be conservative," William White, president, told stockholders in an enclosure accompanying checks for the 50-cents-a-share dividend declared last December 10. The road's directors are "keenly aware of the interest of the stockholders in receiving adequate dividends," Mr. White said, "but this must be balanced with other factors." He summarized these factors as "the necessity of utilizing earnings to the greatest possible extent to (a) reduce debt, (b) finance the remainder of the dieselization program, (c) raise the standard of maintenance, and (d) make such other capital expenditures as are absolutely necessary."

Rutland.—Trackage Rights.—Division 4 of the I.C.C. has approved a trackage rights agreement which will permit this road to use segments of the Boston & Maine, the Troy (N.Y.) Union, and the New York Central, between White Creek, N.Y., and Chatham. The Rutland will abandon its own line,

approximately 57.3 miles, between Bennington, Vt., and Chatham. This change is expected to result in reduction in operating expenses for the Rutland, and will permit that road to render more efficient service (*Railway Age*, February 25, 1952, page 70).

The Rutland will pay \$2 a train-mile, plus the cost of materials or service furnished by the owning roads. The B&M segment extends from White Creek to Troy, approximately 30 miles, and the NYC segment from Troy to Chatham, approximately 28 miles. The Troy Union segment is about 1.7 miles within that city.

Toledo, Peoria & Western.—*Stock Split.*—Division 4 of the I.C.C. has approved this road's application for authority to split its stock on the basis of 1,800 shares for one (*Railway Age*, October 20, 1952, page 18). The commission also approved the road's plan for dissolving the existing Illinois corporation and reincorporating in Delaware. The new TP&W will effect the stock split by issuing 90,000 shares of \$40 par common stock to shareholders of the old company. The old company will be dissolved.

A more favorable corporate law structure in Delaware was cited by the TP&W as the reason for this change. The increase in capital stock resulting from the stock split may lead to an increase in the number of TP&W stockholders, which the road would consider a benefit. The old TP&W company was capitalized at \$5,000, with 50 shares of stock outstanding. Valued at \$75,000 per share, this stock was difficult to sell or transfer, and the use of fractional shares made difficult the keeping of company records.

Valdosta Southern.—*Acquisition.*—The I.C.C. has authorized this road to purchase a 27.4-mile segment of the Georgia & Florida, extending from Madison, Fla., to Valdosta, Ga. Approval was also given to an agreement which permits the VS to use a two-mile segment of the G&F at Valdosta. Use of the latter will connect the VS with the Atlantic Coast Line.

VS was incorporated in 1951. The I.C.C. has authorized the road to issue up to \$1,000,000 in \$100 par stock. The National Container Corporation, which is building a \$25,000,000 pulp and paper plant on the line of the VS at Clyattville, Ga., will purchase the stock and acquire control of the road. Proceeds from sale of the VS shares will be used to purchase the G&F segment (for \$190,000),—and for other purposes, including rehabilitation of the line and new equipment (*Railway Age*, November 10, 1952, page 72).

While the I.C.C. authorized the container corporation to acquire control of VS at present, the commission imposed this condition: The corporation must give connecting railroads a 10-year option to buy the VS at a "fair and reasonable" price. These connecting carriers, in addition to the ACL,

are the Seaboard Air Line at Madison, the G&F, and the Georgia Southern & Florida, a subsidiary of the Southern.

New Securities

Application has been filed with the I.C.C. by:

CHESAPEAKE & OHIO.—To assume liability for \$7,200,000 of equipment trust certificates, to finance in part 26 diesel units and 750 freight cars costing an estimated \$9,012,454.

Description and Builder	Estimated Unit Cost
1 3,000-hp. freight and passenger locomotive, consisting of two 1,500-hp. "A" units (Electro-Motive Division, General Motors Corporation)	\$358,440
8 1,500-hp. road-switchers (Electro-Motive)	166,570
4 1,500-hp. road-switchers (Electro-Motive)	155,304
2 1,500-hp. road-switchers (Electro-Motive)	164,654
10 1,500-hp. road-switchers (Electro-Motive)	166,093
500 70-ton hopper cars (American Car & Foundry Co.)	5,740
250 70-ton covered hopper cars (Pullman-Standard Car Manufacturing Company)	7,360

The certificates, to be dated February 1, 1953, would mature in 30 semiannual installments of \$240,000 each, beginning August 1, 1953. They would be sold by competitive bidding, with the interest rate to be set by such bids.

ILLINOIS CENTRAL.—To assume liability for \$6,000,000 of series "36" equipment trust certificates to finance in part 1,500 drop-bottom, 50-ton gondola cars. The cars, costing an estimated \$5,600 each, will be built in company shops at Centralia, Ill. The certificates, to be dated February 1, 1953, would mature in 30 semiannual installments of \$200,000 each, beginning August 1, 1953. They would be sold by competitive bidding, with the interest rate to be set by such bids.

SOUTHERN.—To issue and sell \$10,000,000 of St. Louis division first mortgage bonds, proceeds from which would be used in retiring development and general mortgage bonds of the Southern. The latter bonds, outstanding in the amount of \$65,412,000 are due April 1, 1956. The Southern expects to call approximately \$30,000,000 of these bonds in January 1953. The new St. Louis division bonds would carry a maturity date of January 1, 1978. They would be sold by competitive bidding, with the interest rate to be set by such bids.

SOUTHERN.—To assume liability for \$3,600,000 of series TT equipment trust certificates, to finance in part 30 diesel units costing an estimated \$4,680,000.

Description and Builder	Estimated Unit Cost
15 1,600-hp. road-switchers (American Locomotive-General Electric Companies)	\$156,000
15 1,500-hp. road-switchers (Electro-Motive Division, General Motors Corporation)	156,000

The certificates, to be dated February 1, would mature in 30 semiannual installments of \$120,000 each, beginning August 1, 1953. They would be sold by competitive bidding, with the interest rate to be set by such bids.

The Southern's application noted that delivery of these 30 units would be made early this year. At that time the Southern will be completely dieselized—"making it the largest major railroad in the country to effect dieselization."

VIRGINIAN.—To assume liability for \$4,350,000 of series C equipment trust certificates to finance in part 1,000 hopper cars costing an estimated \$5,560,000. The cars will be built by the Bethlehem Steel Company. The certificates, dated February 1, would mature in 15 annual installments of \$290,000 each, beginning February 1, 1954. They would be sold by competitive bidding, with the interest rate to be set by such bids.

Division 4 of the I.C.C. has authorized:

DETROIT & TOLEDO SHORE LINE.—To issue and sell \$3,000,000 of first mortgage 3½ per cent bonds, series A. Proceeds from sale of the bonds will be used to retire \$2,956,000 of outstanding first mortgage bonds, due January 1, 1953. Remaining proceeds will be used for other capital purposes. Interest and sinking fund payments on the new bonds will be guaranteed jointly by the Grand Trunk Western and the New York, Chicago & St. Louis. The new bonds will mature December 1, 1982 (*Railway Age*, November 24, 1952, page 65).

GREAT NORTHERN.—To assume liability for \$8,520,000 of equipment trust certificates, to finance in part 32 diesel units and 800 freight cars costing an estimated \$10,655,500 (*Railway Age*, December 8, page 17). Division 4 approved sale of the certificates for \$9,7099 with

interest at 27½ per cent—the bid of Halsey, Stuart & Co. and associates—which will make the average annual cost of the proceeds to the road approximately 2.92 per cent. The certificates, dated January 1, 1953, will mature in 30 semiannual installments of \$284,000 each, beginning July 1, 1953. They were reoffered to the public at prices yielding from 2.15 to 2.95 per cent, according to maturity.

NEW YORK CENTRAL.—To assume liability for \$11,625,000 of equipment trust certificates, to finance in part 60 diesel switching units, 1,500 freight cars and one RDC-3 Budd car. Estimated total cost of this equipment is \$15,519,900 (*Railway Age*, December 8, page 17). Division 4 approved sale of the certificates for \$9,183 with interest at 3½ per cent—the bid of Salomon Bros. & Hutzler and three associates—which will make the average annual cost of the proceeds approximately 3.28 per cent. The certificates, dated January 1, 1953, will mature in 15 annual installments of \$775,000 each, beginning January 1, 1954. They were reoffered to the public at prices yielding from 2.4 to 3.3 per cent, according to maturity.

SOUTHERN-NEW ORLEANS NORTHEASTERN.—To issue and sell \$15,000,000 of joint bonds as part of the Southern's program for meeting \$89,705,000 in bond maturities between now and November 1, 1956 (*Railway Age*, December 1, 1952, page 105). The bonds will constitute a first lien on the 195-mile Northeastern, a Southern subsidiary. Division 4 approved sale of the bonds for \$9,091 with interest at 3¾ per cent—the bid of Kidder, Peabody & Co., White, Weld & Co., and 10 associates. This new issue will mature November 1, 1977.

All proceeds from sale of these bonds will go to the Southern. They will be used, together with other funds, in retiring development and general mortgage gold bonds which are outstanding in the amount of \$65,512,000. They mature April 1, 1956.

As another part of the overall program, the Southern is selling the New Orleans Terminal Company, another wholly owned subsidiary, to the Northeastern. The I.C.C. has approved this transaction. Northeastern will pay \$2,000,000 for the terminal company stock, and the Southern will apply this amount toward retirement of additional development and general mortgage bonds (*Railway Age*, November 24, 1952, page 65).

Dividends Declared

CHESAPEAKE & OHIO.—Common, 75c, quarterly, payable March 20 to holders of record March 2; 3½% preferred, 87½c, quarterly, payable May 1 to holders of record April 6.

CINCINNATI INTER-TERMINAL.—4% preferred, \$2, semiannual, payable February 1 to holders of record January 20.

MICHIGAN CENTRAL.—\$25, semiannual, payable January 31 to holders of record January 14.

WESTERN PACIFIC.—75c, quarterly, payable February 16 to holders of record February 2.

Security Price Averages

	Jan. 13	Prev. Week	Last Year
Average price of 20 representative railway stocks	68.68	69.61	55.11
Average price of 20 representative railway bonds	95.53	95.23	91.13

RAILWAY OFFICERS

EXECUTIVE

J. M. Fitzgerald to Retire

John M. Fitzgerald, vice-chairman of the Eastern Railroad Presidents Conference Committee on Public Relations at New York, retired on January 14, after a railroad career of more than 62 years.

Mr. Fitzgerald was born at Philadelphia April 26, 1877, and received an honorary LL.D. from the University of Pittsburgh in 1931. He entered railroad service in November 1890 as a rodman with the Philadelphia, Harrisburg & Pittsburgh (now part of the Reading). In 1897 he went to Ohio with the Columbus, Sandusky & Hock-



Edward T. Reidy, general manager of the Chicago Great Western, has been appointed vice-president and general manager, as reported in *Railway Age* December 1.

ing (now divided among several carriers) and in 1898 he moved to Oklahoma with the Choctaw, Oklahoma & Gulf (now Rock Island). A year later he joined the Virginia & Southwestern (now part of the Southern) as assistant general manager. From December 1900 to May 1907 he served as traffic manager of the Mount Hope Mineral, a subsidiary of the Central of New Jersey.

Mr. Fitzgerald then joined the Gould interests as vice-president of the Pittsburgh (Pa.) Terminal & Railroad Co. and president of the Davis Coal & Coke Co. at Baltimore, Md. From January 1913 to February 1914 he was president of the Western Maryland. He then served until February 1926 as personnel representative to George Gould on special assignments, largely in connection with Gould coal properties.

Since 1926 he has been with the Eastern Railroad Presidents Conference. He is chairman of the board of the Associated Traffic Clubs of America, a director of the Greater New York Safety Council, and a trustee of the American Museum of Safety. A photograph of Mr. Fitzgerald appears on page 8.

As reported in *Railway Age* December 29, 1952, page 52, **W. Mason King** has been elected vice-president in charge of traffic of the SOUTHERN at Washington, D.C., succeeding **Elmer R. Oliver**, who retired on January 1.

Mr. King was born at Charlotte, N.C., October 31, 1899, and joined the Southern at Charlotte as secretary to the division freight agent on November 1, 1919, later serving in clerical capacities in that office and in the office of freight traffic manager at Washington. He subsequently served as chief clerk to general eastern freight agent, freight traffic representative, commercial agent, and assistant general eastern freight agent, all at New York. Mr. King was appointed district freight agent at Philadelphia

on January 1, 1931; assistant freight traffic manager at Birmingham on May 1, 1933, later transferring to Charlotte; eastern traffic manager on August 1, 1937; freight traffic manager at Cincinnati on February 1, 1940; and assistant vice-president at Washington on January 1, 1945.

Mr. Oliver was born February 25, 1883, in LaFayette county, Miss., and



W. Mason King

entered the service of the Southern on September 1, 1898, as a clerk at Greenville, Miss. He subsequently served as traveling freight agent, soliciting freight agent, and chief clerk to assistant freight traffic manager and to assistant general freight agent, at various points. Mr. Oliver was promoted to general freight agent in March 1920; freight



Elmer R. Oliver

traffic manager at Cincinnati in November 1920; executive general agent at New Orleans and vice-president of the New Orleans & Northeastern and New Orleans Terminal (Southern System lines) in April 1921; freight traffic manager at Washington in October 1923; and vice-president in charge of traffic in October 1924.

F. V. Kraft, superintendent of the New Jersey-Reading division of the RAILWAY EXPRESS AGENCY at Newark, N.J., has been appointed assistant to vice-president, Eastern departments, at New York. Mr. Kraft started in the

express business as a clerk at Wilkes-Barre, Pa. He has held a number of supervisory posts, including that of agent at Wilkes-Barre, general agent



F. V. Kraft

at Pittsburgh, superintendent of the Susquehanna division at Scranton, and superintendent of organization at New York. Mr. Kraft was appointed superintendent of the New Jersey-Reading division in May 1952.

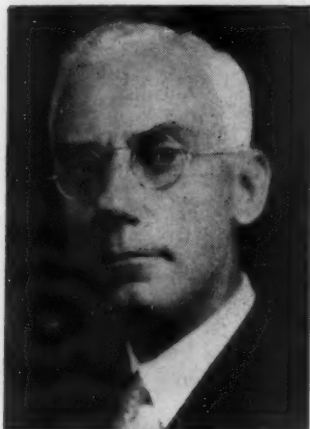
Harold A. Smith, vice-president and general counsel of the CHICAGO, INDIANAPOLIS & LOUISVILLE, has been named executive vice-president in consequence of the election of **Warren W. Brown**, vice-president in charge of traffic, as president (*Railway Age*, January 5, Page 13, and January 12, page 246). Mr. Smith, who is also a director of the company, will retain all of his present duties. A graduate of Northwestern University and the North-



Harold A. Smith

western University Law School, Mr. Smith also has been awarded the degree of doctor of law by the John Marshall Law School. A partner in the law firm of Winston, Strawn, Black & Towner, he was appointed general counsel of the Monon in September 1944. He was elected vice-president and general counsel in May 1946, after having served as attorney for the reorganization managers.

Howard W. Schotter, assistant vice-president in charge of finance of the PENNSYLVANIA at Philadelphia, has retired after more than 46 years service. Mr. Schotter was born at Philadelphia July 25, 1887, and entered railroad service on November 5, 1906, as



Howard W. Schotter

clerk in the office of Samuel Rea, then third vice-president of the PRR. He later served as chief clerk to Mr. Rea for five years during the latter's tenure as president. Mr. Schotter was appointed analyst in the treasury department in 1925, assistant treasurer in 1926, treasurer in 1940 and assistant vice-president in charge of finance in 1947. He also served as officer or director of numerous subsidiary and affiliated companies of the Pennsylvania, and is the author of an historical work, "The Growth and Development of the Pennsylvania Railroad."

FINANCIAL, LEGAL & ACCOUNTING

J. R. Strachan, assistant general auditor of the WESTERN PACIFIC, has retired. **W. G. Levy** and **C. E. Warner** have been appointed assistant general auditors, succeeding Mr. Strachan. Succeeding Mr. Levy as auditor of revenues is **Nicholas A. Schoeplein**, who, in turn, is succeeded as assistant auditor of revenues by **George J. Welch**. **John Y. Murray** succeeds Mr. Warner as auditor of disbursements.

John R. Ekholm, assistant to president of the CHICAGO & WESTERN INDIANA and the BELT RAILWAY OF CHICAGO, has been named secretary of both roads. **Irwin A. Schilke**, assistant auditor of both lines, has been appointed auditor. **Alfred Schmidt** succeeds Mr. Schilke on the C&WI, while **Clarence L. Holt** assumes Mr. Schilke's former BRC duties.

W. M. Delaney has been appointed auditor station accounts of the MISSOURI PACIFIC at St. Louis, succeeding **P. J. McHale**, who has retired, following 51 years of service.

Allan F. Schmalzriedt, assistant general attorney of the CHESAPEAKE & OHIO, has been appointed general attorney, with headquarters remaining at Detroit.

OPERATING

Alvin J. Meyers has been appointed trainmaster-roadmaster of the DENVER & RIO GRANDE WESTERN at Steamboat Springs, Colo.

L. W. Breiner has been appointed trainmaster of the WESTERN PACIFIC at Elko, Nev., succeeding **H. M. Yoe**, who has retired.

James L. Monahan, assistant superintendent of the SPOKANE, PORTLAND & SEATTLE, has been promoted to superintendent. **Frank Barlow**, trainmaster, succeeds Mr. Monahan.

J. C. Love has been named assistant superintendent of the MISSOURI PACIFIC at Kansas City, Mo. He succeeds **R. C. Wilderboor**, assigned to other duties.

C. C. Moore, superintendent of the Kansas City-Western Missouri division of the RAILWAY EXPRESS AGENCY, has been appointed superintendent of the Los Angeles division, succeeding **J. A. Papa**, whose appointment as general manager of the Midwest-Texas department at Houston was reported in *Railway Age* January 12, page 254. **R. L. Linihan**, superintendent of the Nebraska-Wyoming division, succeeds Mr. Moore, while **B. M. Neal**, general agent at Oklahoma City, succeeds Mr. Linihan as superintendent at Omaha.

F. J. Fagan, superintendent of organization of the RAILWAY EXPRESS AGENCY at New York, has been appointed superintendent of the New Jersey-Reading division at Newark, N.J., succeeding **F. V. Kraft**, promoted to assistant to vice-president, Eastern departments, at New York.

Palmer S. Mock, superintendent of motive power of the LONG ISLAND, has been appointed acting superintendent of the entire road, at Jamaica, N.Y., succeeding **Horace B. Stetson**, on leave because of illness.

M. Edward Barnes, assistant general manager of the CENTRAL VERMONT at St. Albans, Vt., will retire from active railroad service on January 31, after almost 50 years of service. Mr. Barnes went to work for the CV on October 24, 1903, as a messenger boy in the audit office, and later served as clerk and stenographer in the general manager's office and as assistant paymaster in the treasury department. Soon after the Grand Trunk assumed partial ownership and control of the CV in 1909, Mr. Barnes was selected as traveling secretary to vice-president and general manager. He became chief

clerk of the motive power department in 1916, traveling car service agent in 1917, and assistant to general manager at St. Albans in June 1918. In 1925 he was selected by the late CV president, Edward C. Smith, to accompany him to Europe to make a study of British and continental railroad operations. When the Vermont floods of 1927 forced the CV into receivership, Mr. Barnes was the first appointee of the United States Federal District Court's receivers. He was named chief clerk and became the "clearing house" for their operational affairs. When the receivership was lifted and the CV property was "bid in" in behalf of the majority stockholder, the Canadian National, Mr. Barnes served as "President For A Day." In the legal process of transferring ownership from court jurisdiction to the newly organized road, stockholders elected Mr. Barnes a director and the directors named him president. Upon reorganization in 1930, Mr. Barnes was appointed assistant to vice-president and general manager, and in 1932 the duties of superintendent of the Northern Division were added. In October 1937 he was named assistant general manager and has served in that capacity since. Mr. Barnes is generally recognized as the "father" of the "Safety First" movement on the CV, which has placed that carrier first among New England railroads several times in the past two decades; he also has been one of New England's most successful specialists in railroad labor relations work.

C. C. Matthews, Jr., has been appointed trainmaster of the MISSOURI PACIFIC at Harlingen, Tex.

TRAFFIC

E. D. McNamee has been appointed district passenger agent of the WABASH at Little Rock, Ark., succeeding **R. T. Mollencott**, who has been transferred to Philadelphia to replace **J. A. Barrett**.

The ST. LOUIS-SAN FRANCISCO has opened a new traffic office at Orlando, Fla., with **Thomas E. Cobb** as general agent. The office is located at 906 Florida Bank building.

John W. Wack has been appointed coal traffic manager of the WABASH, succeeding **B. F. Rice**, who has retired.

A. K. Hinckle, chief clerk to vice-president, traffic, of the UNION PACIFIC, has been named general agent at Walla Walla, Wash., succeeding **James H. Cunningham**, retired.

J. M. Sinclair, has been appointed district freight and passenger agent of the DENVER & RIO GRANDE WESTERN at St. Louis, succeeding **F. D. Lucas**, appointed commercial agent at San Francisco. Mr. Lucas succeeds **M. E. Chase**, who has been appointed gen-

eral agent at Oakland, Cal., replacing **R. E. Davis**, transferred to Los Angeles. Mr. Davis succeeds **A. R. Anderson**, retired. **J. T. Hull**, commercial agent, has been appointed general agent at Eugene, Ore.

G. F. Ehlen, assistant traffic manager of the SPOKANE, PORTLAND & SEATTLE, has been named traffic manager, and **Harry W. Shields**, general freight and passenger agent, has been named assistant traffic manager, in a series of changes in the road's traffic department at Portland, Ore. **E. H. Block**, assistant general freight agent, has been advanced to general freight



G. F. Ehlen

agent; **William J. Crosbie**, chief clerk of the traffic department, has been named general passenger agent; and **George A. Silkworth**, traveling freight and passenger agent at Bend, Ore., has been promoted to general agent at that point.

Sketches of the railway careers of Messrs. Ehlen and Shields appeared in the August 25, 1952 *Railway Age*, page 56.



Harry W. Shields

Mr. Block has been with the company since April 1918 and has held a variety of positions in both operating and traffic departments.

Mr. Crosbie is a graduate of the University of Oregon, where he majored

in business administration. Entering service with the SP&S in June 1935 in its accounting department, he later transferred to the traffic department and served successively as city freight agent, traveling auditor and chief clerk.

J. Ferd. Holtmann has been appointed industrial representative of the NEW YORK CENTRAL SYSTEM at Cincinnati.

H. G. Walker has been appointed assistant freight traffic manager of the SEABOARD AIR LINE at Norfolk, Va. The position of assistant to freight traffic manager, heretofore held by Mr. Walker, has been abolished.

R. E. Melvin, city freight agent of the CANADIAN PACIFIC at Montreal, has been appointed district freight agent at Ottawa, Ont., succeeding **K. D. Carmichael**, whose promotion to assistant general freight agent (rates) at Montreal was reported in *Railway Age* January 5, page 55.

R. L. Sweet has been named assistant general freight agent of the NEW YORK CENTRAL at Chicago, succeeding **Fred L. Smart**, who has retired. **J. E. Norwood**, chief clerk to freight traffic manager, has been promoted to assistant to freight traffic manager.

H. V. Cook, assistant freight traffic manager of the ST. LOUIS-SAN FRANCISCO, has been promoted to the newly created position of assistant to vice-president, traffic. **A. L. Bardgett**, general freight agent, has become assistant freight traffic manager; **J. E. Nash**,



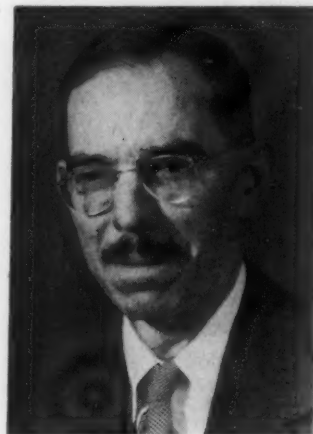
H. V. Cook

assistant general freight agent, has been appointed general freight agent; and **J. J. LeHoullier**, chief clerk, has been named assistant general freight agent.

Mr. Cook joined the Frisco in 1920 as a clerk, and in 1926 was named traveling freight agent at Blytheville, Ark. He was transferred to St. Louis in 1927 and in 1938 became assistant general freight agent. In 1947, Mr. Cook was promoted to general freight

agent, and last June became assistant freight traffic manager.

Mr. Bardgett has been with the Frisco since 1913, serving in different clerical jobs until 1922, when he was promoted to assistant chief tariff com-



A. L. Bardgett

piler. He was named assistant general freight agent in 1938, and has been general freight agent since 1949.

Mr. Nash, a graduate of the University of the South, came to the Frisco in 1924 as a tariff distribution clerk. After holding a number of clerical



J. E. Nash

posts, he was transferred to the Alabama, Tennessee & Northern, a Frisco subsidiary, as traffic manager at Mobile in 1947. He was named general freight agent there in 1949, and later that year went to St. Louis as assistant general freight agent.

Gaylord Anderson, assistant to general passenger traffic manager of the UNION PACIFIC, has been appointed assistant passenger traffic manager, with headquarters as before at Omaha, succeeding **L. G. Meder**, who has retired. **J. M. Forsha**, general agent, passenger department, at Kansas City, has been appointed assistant to general passenger traffic manager at Omaha. **H. M. Back**, city passenger agent at Kansas City, has been appointed gen-

FOR '53

IT'S THE MODEL 53

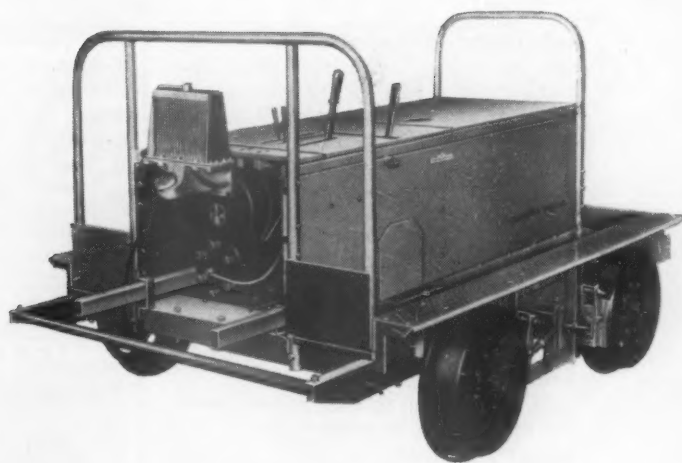
FAIRBANKS-MORSE

MOTOR CAR

and now

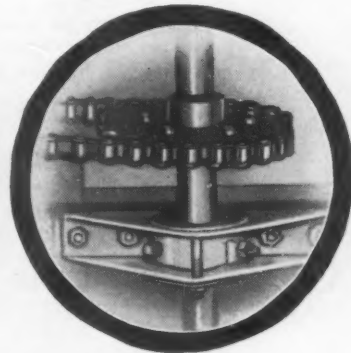
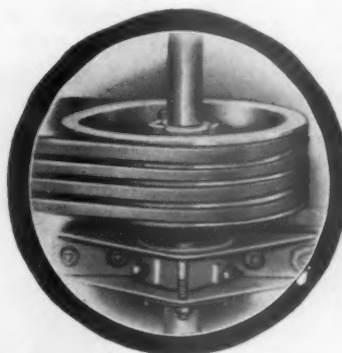
**YOUR CHOICE
OF DRIVE**

**... Chain or
V-Belt drive**



... the generous capacity standard section motor car that accommodates full crew and equipment, yet is light enough for a minimum crew to handle.

The Model 53 brings you all the performance proved features of F-M motor cars including:— low rear lifting weight—low center of gravity—sturdy steel frame—four-wheel brakes—rugged water cooled two-cycle engine. Dependability. Performance. Safety.



The Model 53 has been redesigned so that you may have a choice of Chain Drive or V-Belt Drive—with the same basic motor car and the same clutch assembly.

Each drive brings you the many advantages of the Fairbanks-Morse air-cooled clutch that slipping will not harm. Continued slipping for starting and pulling heaviest loads cannot cause over-heating or damage. Clutch wear with either drive is minor and easily taken-up.

When you need dependable motor-car performance, call your Fairbanks-Morse railroad specialist. He can show you the model built to your standards. Fairbanks, Morse & Co., Chicago 5, Illinois.



FAIRBANKS-MORSE

a name worth remembering when you want the best

RAIL CARS AND RAILROAD EQUIPMENT • DIESEL LOCOMOTIVES AND ENGINES • ELECTRICAL
MACHINERY • PUMPS • SCALES • WATER SERVICE EQUIPMENT • HAMMER MILLS • MAGNETOS

eral agent, passenger department at that office. **N. E. Luthi**, former district passenger agent at New York, and newly returned from furlough to the armed services, has been appointed general agent, passenger department, at Denver, succeeding **K. N. Middlekauff**, who has retired after more than 47 years of service. **R. T. Griffin**, city passenger agent at Salt Lake City, has been appointed general agent, passenger department, with the same headquarters, succeeding **W. J. Thomas**, who has retired following 52 years of service.

Mr. Anderson entered railway service with the UP as a stenographer and secretary to passenger traffic manager at Omaha in 1928. From 1944 until 1946 he served there as head of the correspondence bureau; military clerk; city passenger agent; and special representative. In 1946 he became chief clerk to general passenger traffic manager, and a year later was promoted to assistant to general passenger traffic manager.

Mr. Meder joined the UP in 1904, and served in a number of clerical positions until 1915, when he became traveling passenger agent at Des Moines. In 1923 he was appointed city passenger agent at Detroit, and from 1934 to 1943 was general agent, passenger department, at Omaha. He was then promoted to assistant to general passenger traffic manager at Omaha, and in 1945 became assistant passenger traffic manager.

Miss Orpha Han, passenger representative of the NEW YORK CENTRAL at Chicago, has been named assistant to general passenger agent at that point.

William G. Klein, assistant general freight agent of the CHICAGO & NORTH WESTERN, has been named general freight agent at Minneapolis. The position of assistant general freight agent has been abolished.

Alexander M. Allison, assistant chief clerk of the CHICAGO, ROCK ISLAND & PACIFIC's passenger department, has been named manager of mail, baggage and express traffic.

Ralph E. Bolick has been appointed district freight agent of the FLORIDA EAST COAST at Miami, Fla.

W. A. Hardy has been appointed merchandise agent of the KANSAS CITY SOUTHERN at New Orleans.

MECHANICAL

Albert F. Stiglmeier, general supervisor boilers and welding of the NEW YORK CENTRAL at New York, retired on January 1.

Bert L. Strohl, assistant master mechanic of the NEW YORK CENTRAL at Indianapolis, has been promoted to master mechanic at Bellefontaine,

Ohio, succeeding the late **John J. Mellen**. **Ernest E. Bradley**, general foreman at Riverside, Ohio, has been named assistant master mechanic at Indianapolis, succeeding Mr. Strohl.

J. J. Ortlieb, motive power engineer of the LONG ISLAND, has been named acting superintendent of motive power in place of **Palmer S. Mock**, who has been appointed acting superintendent of the entire road.

ENGINEERING

As reported in *Railway Age* December 8, 1952, page 90, **John J. Clutz** has been appointed assistant chief engineer of the PENNSYLVANIA system at Philadelphia. Mr. Clutz was born June 30, 1904, at Carthage, Ill., and was graduated from Gettysburg College in 1924. He entered railroad service on June 15, 1924, doing construction and location work for the Louisville & Nashville, and later served in the valuation department of the New York Central. He joined the PRR on June 1, 1926, as a rodman, and subsequently served as assistant supervisor of track and supervisor of track at various points, assistant division engineer of the New York division, and division engineer of the Indianapolis division, successively. He then served as engineer maintenance of way and



John J. Clutz

structures of the Washington Terminal Company at Washington, D.C. Mr. Clutz was furloughed for military service in April 1942 and served in the Military Railway Service until January 1946, when he was discharged from the Army with the rank of colonel. Returning to the PRR he became division engineer on special duty in the office of the chief engineer at Philadelphia. In May 1948 Mr. Clutz was appointed assistant to chief engineer of the Eastern region at Philadelphia and on September 1, 1949, was promoted to assistant chief engineer of the Eastern region at New York.

Henry A. Aalberg, assistant chief engineer — system of the CHICAGO, BURLINGTON & QUINCY, has been ap-

pointed chief engineer, at Chicago, succeeding **Herbert R. Clark**, who has retired after more than 45 years of service. **E. J. Brown**, engineer of track—system, has been appointed assistant chief engineer, succeeding Mr. Aalberg. **F. H. McKenney**, district engineer — maintenance of way at Omaha, has been appointed engineer of track—system, at Chicago, succeeding Mr. Brown. **S. J. Owens, Jr.**, division engineer at Casper, Wyo., has been



Herbert R. Clark

appointed district engineer — maintenance of way at Omaha, succeeding Mr. McKenney.

Mr. Clark began his railroad career in 1907 as a rodman in the engineering department of the Burlington, advancing through that department in numerous positions until 1932, when he was appointed engineer maintenance of way. In 1942 he was appointed chief engineer maintenance of way and, in 1943, chief engineer.

Mr. Brown began his railroad career in 1918 as a yard clerk for the CB&Q, and held positions in the transporta-



E. J. Brown

tion and engineering departments before becoming a roadmaster in 1926, district engineer of maintenance in 1939, assistant division superintendent in 1942, and engineer of track—system in 1943.

Mr. McKenney entered railroad serv-

ice in 1920 as a draftsman, holding numerous positions in the engineering department until 1929, when he was appointed division engineer at Chicago. In 1934 he was placed in charge of the rail detector car, and in 1939 was advanced to district engineer maintenance of way at Omaha.

Fred D. Danford, assistant to chief engineer of the TEXAS & PACIFIC at Dallas, Tex., has retired after 40 years of service. Mr. Danford was born at New Boston, Ill., on November 19, 1882, and was graduated from the University of Illinois (B.S. in C.E., 1909). Shortly after graduation he worked briefly with three railroads—the Burlington at Chicago, the Oregon Short Line (now part of Union Pacific) at Salt Lake City, and the Missouri Pacific at St. Louis. Mr. Danford began his T&P career in April 1912 as chief draftsman in the engineering department at Dallas later serving as inspector of bridges and office engineer. He was appointed assistant to chief engineer on December 16, 1945.

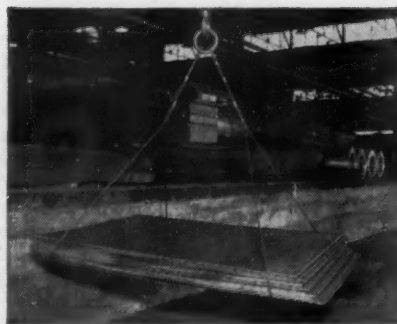
C. R. Bland has been appointed assistant electrical engineer—rolling stock of the CHESAPEAKE & OHIO, and **H. A. Witten** has been appointed assistant electrical engineer—fixed properties, both with headquarters at Richmond, Va. The position of assistant electrical engineer has been abolished.

J. M. Nicholson, assistant chief engineer of the LONG ISLAND, has been promoted to chief engineer, with headquarters as before at Jamaica, N.Y., succeeding **T. W. Pinard**, whose retirement was reported in *Railway Age* January 12, page 266.

L. E. Mitchell has been appointed special projects engineer for the CANADIAN NATIONAL at Montreal, with duties relating to the St. Lawrence Seaway project and other special undertakings.

John W. Wallenius, engineer maintenance of way of the Central region of the PENNSYLVANIA at Pittsburgh, has been appointed assistant chief engineer of the Eastern region at New York, succeeding **John J. Clutz**, whose promotion to assistant chief engineer of the system at Philadelphia was reported in *Railway Age* December 8, 1952, page 90, and this issue, page 56. A biography and photograph of Mr. Wallenius were published in *Railway Age* June 23, 1952, page 100.

G. R. Doull, assistant chief engineer of the Atlantic region of the CANADIAN NATIONAL, has been appointed regional chief engineer, Atlantic region, with headquarters as before at Moncton, N.B., succeeding **T. L. Landers**, retired. **E. W. G. Chapman**, engineer maintenance of way, has been appointed assistant chief engineer, with headquarters as before at Moncton, succeeding Mr. Doull. **R. P. Puddester**, principal assistant en-

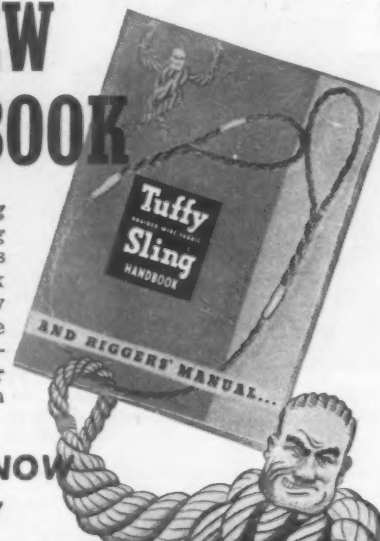


The Answers To Your Questions:

- 1 How to determine the sling types you need
- 2 How to get longer sling life
- 3 How to make hitching and unhitching easier
- 4 Proved ways to cut sling costs
- 5 How to splice wire rope—directions for socketing

IN THIS NEW SLING HANDBOOK

Only handbook of its kind in the sling field—packed with useful, money-saving facts that can help you cut sling costs up to 40%. The Tuffy Sling Handbook and Rigger's Manual shows you how Tuffy's exclusive, patented braided wire fabric construction assures greater flexibility and longer service life. See for yourself how much you can save with Tuffy Slings on the job!



FREE! Mail Coupon NOW For Your Copy

union Wire Rope corporation
Specialists In Wire Rope and Braided Wire Fabric

2256 Manchester Ave., Kansas City 3, Mo.

- ☐ Send FREE Tuffy Sling Handbook and Rigger's Manual
- ☐ Have my Union Wire Rope Fieldman deliver to me FREE a 3-Ft. sample Tuffy Sling

Firm Name _____

By _____ Title _____

Address _____ City _____ State _____

Railway INSULMAT

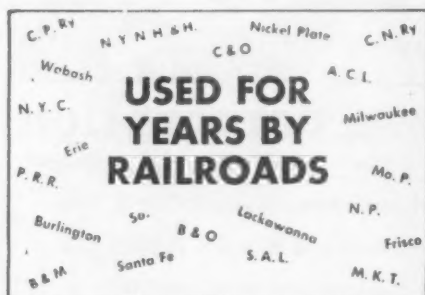
The remarkably effective
3-PURPOSE COATING
that saves Railroads
Thousands of Dollars every year

- Deadens Sound
- Kills Vibration Noises
- Protects Metal against Rust and Corrosion
- Prevents Condensation Drip and Resulting Damage to Freight
- Prevents Saturation of all types of Insulation Products
- Used as a Ceiling Finish instead of Plywood—it costs less and is better

Applied with spray gun to ceilings and side walls of freight, passenger and refrigerator cars and cabooses.



Railway Insulmat being applied to the inverted ceiling of a California Zephyr car.



It will pay you to investigate this tried and true product—RAILWAY INSULMAT. Send for circular today.

J. W. MORTELL CO.
563 Burch St., Kankakee, Ill.
Technical Coatings since 1895

gineer, has been appointed engineer maintenance of way, succeeding Mr. Chapman. The position of principal assistant engineer has been abolished. **R. M. Wickwire**, structural designer, has been appointed building engineer, Atlantic region, with headquarters as before at Moncton, succeeding **J. Pullar**, retired. A biography and photograph of Mr. Doull were published in *Railway Age* October 13, 1952, page 178.

SIGNALING & COMMUNICATIONS

The name of the WESTERN PACIFIC's telegraph department has been changed to communications department; **N. W. Menzies**, superintendent of telegraph, has been given the title of superintendent of communications. **J. C. Cotter**, wire chief, has been named assistant to superintendent of communications. **J. W. Kendall** has been appointed general telephone and telegraph supervisor, and **R. F. Czeikowitz** becomes general radio supervisor.

Owen E. Thompson has been appointed communications engineer of the ST. LOUIS SOUTHWESTERN at Tyler, Tex.

SPECIAL

C. E. Quigley has been appointed methods and research officer of the SOUTHERN PACIFIC at San Francisco.

James G. Shea, public relations director of the PACIFIC ELECTRIC, has been appointed manager, public relations department, of the SOUTHERN PACIFIC (Southern district) and the PE, with headquarters as before at Los Angeles. With consolidation of SP and



James G. Shea

PE public relations activities in the Los Angeles area, **Fred Woodward** and **H. Brad Atwood** have been named assistant managers of the combined department.

Mr. Shea has been public relations

director of the PE since he joined the company when that department was formed in 1949.

M. B. Harlan, chief of police of the LOUISVILLE & NASHVILLE at Louisville, Ky., has retired after 44 years of service. **M. B. Harlan, Jr.**, has been appointed supervisor of property protection there. The positions of chief of police and assistant chief of police have been abolished.

OBITUARY

John H. Rigby, retired general manager of the COLUMBUS & GREENVILLE, died recently at Loudon, Tenn.

Roy M. Culp, retired treasurer and assistant secretary of the ST. LOUIS-SAN FRANCISCO, died on December 28, 1952, at St. Louis. Prior to his retirement Mr. Culp had completed 50 years of service with the road. A sketch of his career appeared in the January 14, 1952, *Railway Age*.

Thomas Evans Owen, 58, director of the advertising and publications department of the LOUISVILLE & NASHVILLE and editor of the L&N Magazine since its inception in March 1925, died on January 6 at the Veterans' Hospital, Louisville, Ky., after an illness of three months.



SWITCHES CROSSINGS — FROGS

Your Railroad Track Material requirements tailor-made exactly to specifications. **NELSON IRON WORKS**, backed by years of know-how in this highly specialized business, is a recognized leader in the field.

NELSON
IRON WORKS, INC.
45 SPOKANE ST. SEATTLE, WASH.

Current Publications

PERIODICAL ARTICLES

How Do You Doctor an Ailing Railroad? *Business Week*, January 3, 1953, pp. 86-88. McGraw-Hill Publishing Company, 330 W. 42nd st., New York 36. Single copies, 25 cents.

The New York Central is big—and so are its problems—but William White, its new president, is tackling them and hopes to solve them.

New Contender: Gas Turbines. *Business Week*, January 10, 1953, pp. 41-44. McGraw-Hill Publishing Company, 330 W. 42nd st., New York 36. Single copies, 25 cents.

According to *Business Week*, the advantages of the gas turbine stand out when compared to its diesel cousin and engineers are working to develop the turbine engine toward a longer service life.

Company Collections. *Fortune*, January 1953, pp. 94-99. *Time, Inc.*, 540 N. Michigan ave., Chicago 11, Ill. Single copies, \$1.

Company collections are records of company history, and are, therefore, segments of the industrial history of America. When carefully selected and well displayed, they provide good public relations at relatively little cost. Among those noted or illustrated in this article are Yale & Towne's collection of historic locks and keys; Cluett, Peabody's collection of collars; Worcester Pressed Steel's collection of ancient and medieval armor; Union Pacific's museum, which has gone outside its own history and added relics of the early West; and the B&O's museum in Bailey's Roundhouse in Baltimore.

The Half-Pint Railroad They Wouldn't Let Die. By Morton M. Hunt. True, December 1952, pp. 52-56, 74-76. Illustrations. Fawcett Publications, Inc., Greenwich, Conn. Single copies, 25 cents.

Regulatory authorities at Washington, D.C., and Raleigh, N.C., agreed with the Southern that its 18-mile Taylorsville branch ought to be abandoned. Traffic was light. Wage scales were just as high as out on the main line. Taxation swung the finishing blow. Then the people of Taylorsville realized that loss of their railroad "would put our town back 50 years," and banded together to create the Alexander Railroad Company to operate the line. How well they succeeded under the able guidance of L. P. Zachary—theretofore a traveling salesman—is the subject of Mr. Hunt's lively and authentic story.

PAMPHLETS

The Inland Waterways and Mass Production; The New Standard in Bulk Transportation. 43 pages, illustrations, maps. American Waterways Operators, Inc., 1319 F st., N.W., Washington 4, D.C. Free.

Claiming that "mass production and mass consumption call for mass distribu-

tion and a freight carrier of the same Gargantuan proportions," this brochure tells the story of what it calls a "new standard in bulk transportation." The pamphlet contains data on commodities handled on inland waterways; a brief description of each of those waterways; statistics on amount of traffic and principal commodities handled, and types of vessels used. The authors further claim that "the inherent advantage of inland waterway transportation is this capacity for moving bulk and heavy commodities long distances at transportation costs competitive with *short-haul rail rates*" (italics ours). "Only the barge and towing vessel industry," they modestly—and debatably—say,

"has brought forth a carrier geared to modern production and distribution."

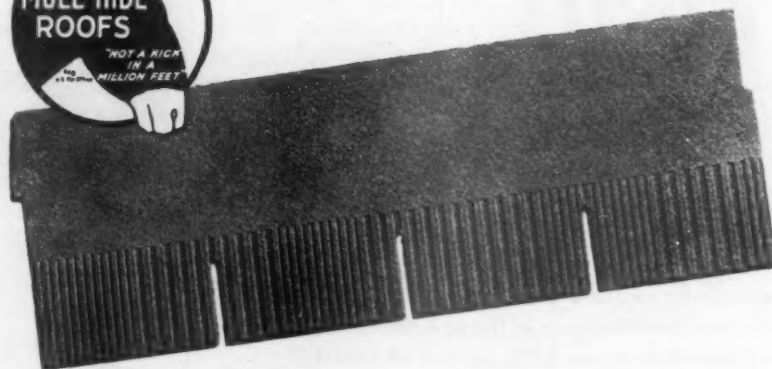
Your Skill Improvement Program. 16 pages. Bureau of Apprenticeship, U. S. Department of Labor, Washington 25, D. C. Free.

Containing ideas and suggestions for broadening the skills of the nation's work force, this booklet emphasizes the importance of developing training programs to meet specific needs, sets forth ideas and suggestions for organization and operation of skill improvement programs, and provides a check list to enable an employer to make a spot evaluation of his current training position.

Many Railroads today specify **MULE-HIDE**



Town & Country roofs



—because it's the only shingle with
ALL these weatherproof features:

3⁷/₈" WEATHER EXPOSURE

TRIPLE THICKNESS

4¹/₄" HEADLAP

290 LB. WEIGHT

4-UNIT DESIGN

SECURITY NAILING

PLUS —

**COR-DU-ROY ribs & grooves
that SLOW DOWN ROOF WEAR!**

**11
beautiful
colors!**

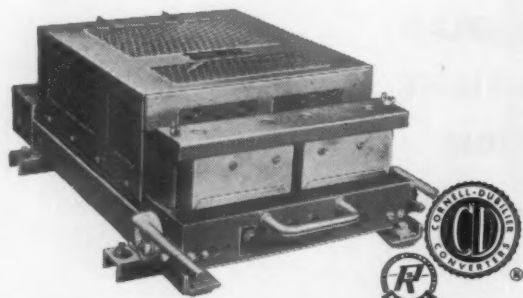
Write — For samples and full specifications

THE LEHON COMPANY — Chicago 9

The first VIBRATOR CONVERTER- field-proved and accepted for railroad duty!

The C-D Vibrator Converter is already being widely used on many of America's leading railroads. *Assures uninterrupted radio communications:* C-D's patented dual vibrator circuit, with automatic switch-over, services itself en route. *Like found money in the communications budget:* Saves 60% on cost of initial installation; saves 50% each year on maintenance costs.

Write for technical bulletin: Cornell-Dubilier Electric Corp., Dept. RA13A, Indianapolis Division, 2900 Columbia Avenue, Indianapolis, Ind. Affiliate Member A.A.R.



CONSISTENTLY DEPENDABLE
CORNELL-DUBILIER
VIBRATOR CONVERTERS with Railroad Dependability

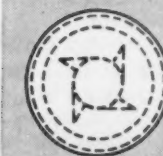
PLANTS IN SOUTH PLAINFIELD, N. J.; NEW BEDFORD, WORCESTER, AND CAMBRIDGE, MASS.; PROVIDENCE, R. I.; INDIANAPOLIS, IND.; FUGUAY SPRINGS, N. C.; AND SUBSIDIARY, THE RADIANT CORP., CLEVELAND, OHIO

Lewis **sealtite** large head car bolts



Especially designed for tank car running boards, but may be used in wood wherever larger heads are required. Sealtite fins prevent turning. Beveled head provides water-tight seal, prevents tearing of wood fibers. Available in Hot-Dip Galvanized finish for Double-Life, greater economy.

See your Lewis representative, or contact factory for samples, prices, full details.



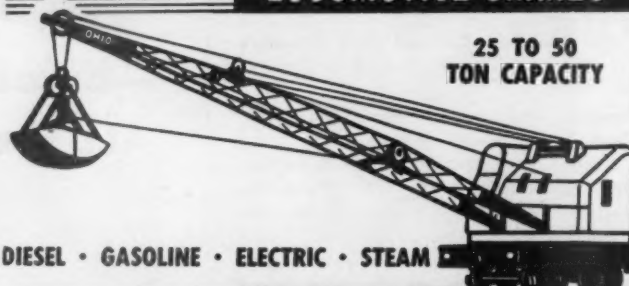
Cross section of head, from above, showing fins, bevel and shank. Bolt available with Loktite Nut #2 or std. sq. nuts.

Lewis

BOLT & NUT COMPANY
504 Malcolm Ave. S. E.
MINNEAPOLIS 14, MINNESOTA



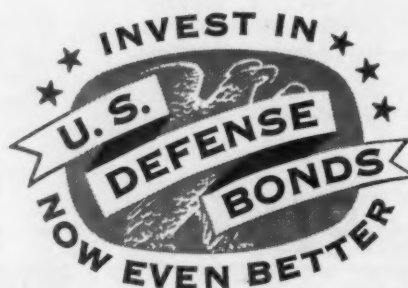
OHIO LOCOMOTIVE CRANES



**25 TO 50
TON CAPACITY**

DIESEL • GASOLINE • ELECTRIC • STEAM

THE OHIO LOCOMOTIVE CRANE CO
BUCYRUS, OHIO



CLASSIFIED DEPARTMENT

Rates: \$5.00 an inch (1" x 1 1/2") per insertion; employment ads 10 cents a word, minimum \$2.00. Add \$1.00 for box address.

RAILROAD EQUIPMENT—FOR SALE

USED

AS IS

RECONDITIONED

STANDARD GAUGE FREIGHT CARS

Box—Double Sheathed, 50-Ton

Box, Single Sheathed, 50-Ton

Tank, 3,000-Gallon, High Pressure

Tank, 8,000-Gallon, Coiled and Non-Coiled

Gondolas, Composite or All-Steel, 50-Ton

Hoppers, Covered, All-Steel, 70-Ton

Hoppers, Twin, All-Steel, 50-Ton Cross Dump

Hoppers, All-Steel, 70-Ton, Cross Dump

EXTRA LONG FLAT CARS

40- & 50-Ton Capacity, Length 70' and 74'

CABOOSE CARS

Eight Wheel, Cupola Type

STANDARD GAUGE AIR DUMP CARS

Side Dump, 20-Yd., 40-Ton, Lift Door

End Dump, 20-Yd., 50-Ton, Drop Door

Side Dump, 30-Yd., 50-Ton Drop Door

OTHER EQUIPMENT

Locomotive Cranes

Overhead Cranes

Railroad Track Scales

STANDARD GAUGE DIESEL-ELECTRIC ROAD SWITCHING LOCOMOTIVE

1500-H.P., 120-Ton, Type 0-4-4-0

PASSENGER EQUIPMENT

Passenger Cars

Baggage Cars

4 All-Steel Dining Cars, Air-Conditioned

Send us your inquiries

We Buy Freight Cars for Dismantling

Send us your offerings

REPAIR PARTS

For

All Types of

Freight Cars

IRON & STEEL PRODUCTS, INC.

GENERAL OFFICE

13486 S. Brainerd Ave., Chicago 33, Illinois

Phone: BAyport 1-3456

NEW YORK OFFICE

50-c Church St., New York 7, N. Y.

Phone: BEekman 3-8230

"ANYTHING containing IRON or STEEL"

STORAGE TANKS

6,000 Gallon

8,000 Gallon

10,000 Gallon

REPRESENTATIVES WANTED

Through a change in sales policy, a leading concern in the Diesel engine service field is seeking representatives in all parts of the country. If you can sell a quality product we would be interested in hearing from you in detail. Please include a list of the concerns you are now representing.

Address Box 668, RAILWAY AGE, 30 Church St., New York 7, N.Y.

WANTED

Position in railroad sales. Three years' experience as sales representative in the railroad field plus three years service engineering. References. Chicago resident.

Box 119, RAILWAY AGE, 79 West Monroe St., Chicago 3, Ill.

FOR SALE

Fourteen 70-ft. all-steel flat cars.

Wood decking and A B brakes. One private railroad car with living room, dining room, 3 bedrooms, and kitchen. All cars in first class condition. Will pass interchange. Inspection can be made at our Chicago yard.

Erman-Howell Division

LURIA STEEL AND TRADING CORP.

332 South Michigan Avenue Chicago 4, Illinois
Phone WAbash 2-0250

Educational Services for RAILROAD MEN

Our New Service on Diesel Locomotive Operation is highly recommended for Engineers and Firemen

The Railway Educational Bureau
Omaha 2, Nebraska

POSITION WANTED

Sales or Sales-and-Service

Experienced man. Have primary contacts with majority of railroads in mechanical and engineering departments; repair shops, car builders, yard maintenance forces; maintenance and engineering departments of transit companies. Also industrial contacts with plant engineers, architects, etc.

Address Box 153, RAILWAY AGE, 79 West Monroe St., Chicago 3, Ill.

Looking for A Job?

Use The "Position Wanted" Column of CLASSIFIED DEPARTMENT

Advertisers

IN THIS ISSUE

The information contained in the advertising pages of Railway Age constitutes an important supplement to the editorial content of this paper. Refer to them for the latest advances in equipment, materials and supplies.

A		L	
American Steel Foundries	10	Lehon Company, The	59
Agency—Erwin, Wasey & Company, Inc.		Agency—Ewell & Thurber Associates	
Armco Steel Corporation	Back Cover	Lewis Bolt & Nut Company	60
Agency—N. W. Ayer & Son, Inc.		Agency—Ruthrauff & Ryan, Inc.	
		Luria Steel and Trading Corp.	61
B		M	
Bethlehem Steel Company	3	Mortell Co., J. W.	58
Agency—Jones and Brakeley		Agency—Arthur C. Barnett Advtg	
C		N	
Cornell-Dubilier Electric Corp.	60	Nelson Iron Works Inc.	58
Agency—Friend-Reiss-McGlowe Advtg		Agency—The Burke Company	
Crane Co.	28		
Agency—The Buchen Company		O	
D		Ohio Locomotive Crane Co., The	60
du Pont de Nemours & Co., (Inc.) E. I.	2	Agency—Coleman Todd & Associates	
Agency—Batten, Barton, Durstine & Osborn, Inc.		Oxweld Railroad Service Company, Division of	
		Union Carbide and Carbon Corporation	23
E		Agency—J. M. Mathes, Inc.	
Electro-Motive Division, General Motors Corporation	20, 21	R	
Agency—Kudner Agency, Inc.		Railway Educational Bureau, The	61
		Railway Maintenance Corporation	19
F		Agency—Walker & Downing	
Fairbanks, Morse & Co.	55	Ryerson & Son, Inc., Joseph T.	62
Agency—The Buchen Company		S	
G		Scullin Steel Co.	22
General Electric Company	26	Agency—Batz-Hodgson-Neuwoehner Advertising Agency	
Agency—G. M. Basford Company		Simmons—Boardman Publishing Corporation	27
H		U	
Hertz-Drive-Yourself System	9	Union Carbide and Carbon Corporation, Oxweld Railroad Service Company	23
Agency—Campbell-Ewald Co., Inc.		Agency—J. M. Mathes, Inc.	
I		Union Switch & Signal	6
International Nickel Company, Inc., The	24	Agency—Ketchum, MacLeod & Grove, Inc.	
Agency—Marshall & Pratt, Inc.		Union Wire Rope Corporation	57
Iron & Steel Products, Inc.	61	Agency—R. J. Potts-Calkins & Holden, Inc.	
		W	
		Western Railroad Supply Company	63
		Agency—L. H. Gross & Associates	
		Westinghouse Air Brake Co.	4
		Agency—Batten, Barton, Durstine & Osborn, Inc.	
		Wine Railway Appliance Co., The	Front Cover
		Agency—Beeson-Reichert, Inc.	

STEEL in stock at
RYERSON

Every kind of steel is in stock for quick shipment though many sizes are often missing due to the heavy demand. Joseph T. Ryerson & Son, Inc., Plants: Chicago, Milwaukee, St. Louis, Cincinnati, Detroit, Cleveland, Buffalo, Boston, Philadelphia, Jersey City, Pittsburgh, Los Angeles, San Francisco, Seattle, Spokane

BARS—carbon & alloy, hot rolled & cold finished
STRUCTURALS—channels, angles, beams, etc.

PLATES—sheared & U. M., inland & 4-Way Floor Plate
SHEETS—hot & cold rolled, many types and coatings

TUBING—boiler & mechanical, seamless & welded
STAINLESS—Alloy, heavy plates, sheets, bars, tubes

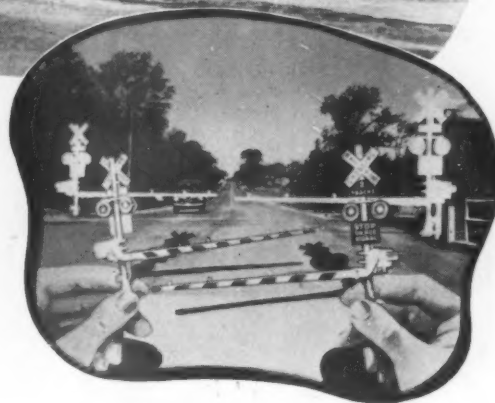


MODEL 10 AUTOMATIC SIGNALS*



protect busy crossings on a hundred railroads

Positive safety plus economy. These make Model 10's first choice with traffic experts seeking maximum protection at minimum cost. So reliable is Model 10 performance that *not a single accident has ever occurred as a result of operation failure on the part of these signals.* And cost-wise, Model 10's are top rated. Easy installation, minimum operating cost and virtually no replacement of parts make these signals a *best buy* in grade crossing protection.



Cost-wise and otherwise, Model 10's will fit into your modernization picture.

There's much more to tell about Model 10 safety and economy. Get complete information. . . Write today for Brochure 748-RA153.

*Pat. in the
U.S.A. and in
Canada



WESTERN RAILROAD SUPPLY COMPANY

General Offices and Factory:

2428 SOUTH ASHLAND AVENUE • CHICAGO 8, ILLINOIS



He's safe on Armco wheels

Armco Wrought Steel Wheels help make modern rail-travel safe. They are old—yet new! Old because they have 44 years' experience in wheel-making behind them, modern because they are produced to resist the severe braking under passenger cars and the complex stresses imposed by diesel locomotives.

For the last 17 years an intensive research program has been devoted to finding out what happens to wheels in service. Facts obtained from this study have been applied to the forging, heat treating and finishing of Armco Wheels. Latest methods of quality control insure

uniformity from wheel to wheel to offer you greater peace of mind.

Modern equipment and improved right-of-way have enabled you to step-up your schedules. You have new power, up-to-date trucks and increased braking ratios, not to mention improvements in signaling and track maintenance. But—are your wheels selected for these more severe, changed operating conditions?

You'll find it worth while to know more about Armco Wrought Steel Wheels. Just get in touch with our nearest District Office, or write us at the address below.

Armco Steel Corporation

1373 Curtis Street, Middletown, Ohio • Plants and Sales Offices from Coast to Coast • Export: The Armco International Corporation

